Presentation
to the

New Orleans District Interagency Hurricane Workshop

Debris

by

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New Orleans District

US Army Corps
of Engineers ®

TOPICS

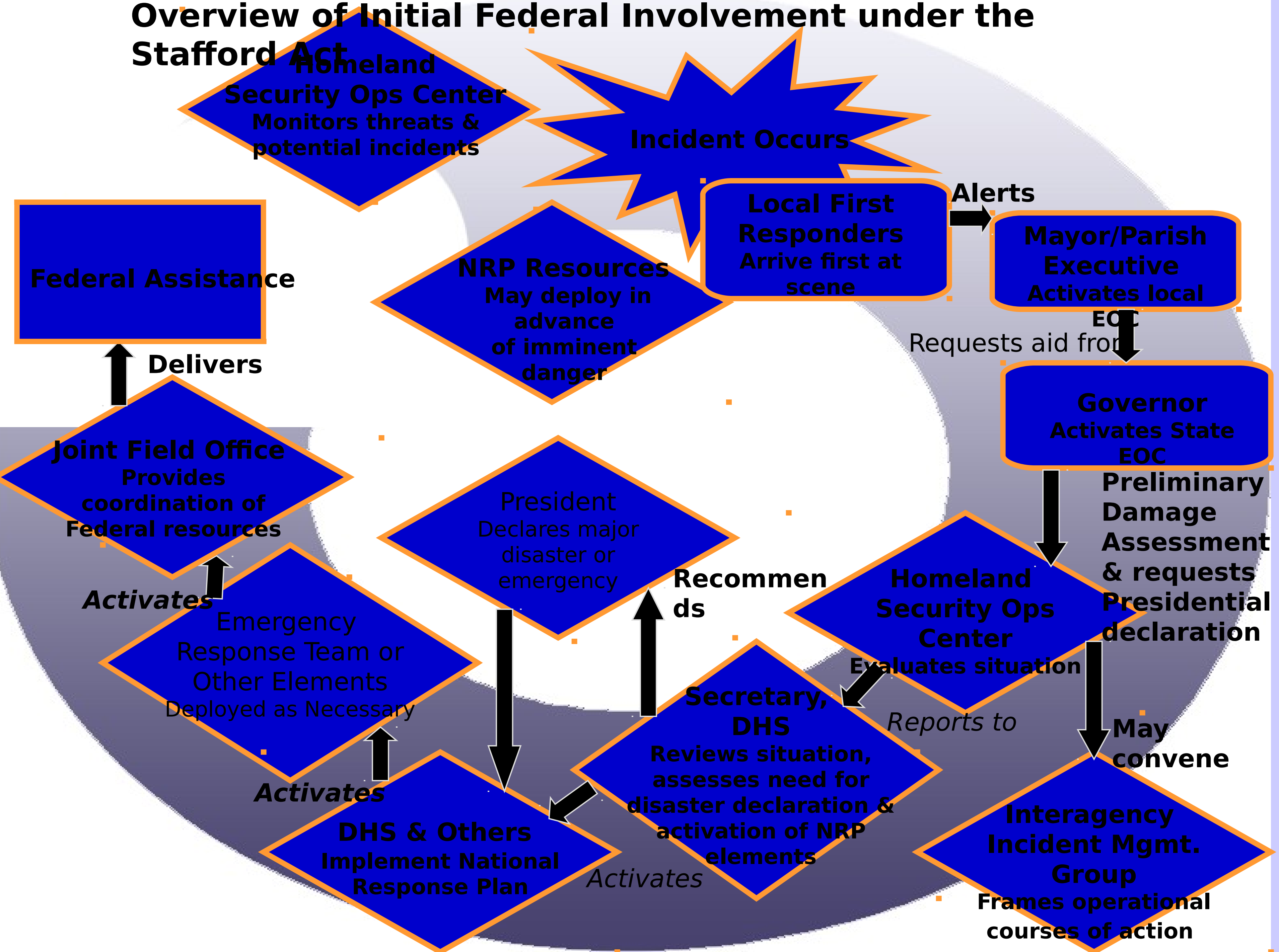
USACE Debris Operations as part of the

National Response Plan (NRP)

Debris Mission Evolution

Hurricane Katrina and Rita Debris Response

Overview of Initial Federal Involvement under the Stafford Act



Incident Occurs

Local First Responders
Arrive first at scene

Alerts

Mayor/Parish Executive
Activates local EOC

Requests aid from

Governor
Activates State EOC

Preliminary Damage Assessment & requests Presidential declaration

Homeland Security Ops Center
Evaluates situation

May convene

Interagency Incident Mgmt. Group
Frames operational courses of action

Reports to

Secretary, DHS
Reviews situation, assesses need for disaster declaration & activation of NRP elements

Recommends

President
Declares major disaster or emergency

Activates

DHS & Others
Implement National Response Plan

Activates

Emergency Response Team or Other Elements
Deployed as Necessary

Activates

Joint Field Office
Provides coordination of Federal resources

Delivers

Federal Assistance

Homeland Security Ops Center
Monitors threats & potential incidents

NRP Resources
May deploy in advance of imminent danger

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Emergency Support Functions

- ESF #1 – Transportation
- ESF #2 – Communications
- ESF #3 – Public Works and Engineering
- ESF #4 – Firefighting
- ESF #5 – Emergency Management
- ESF #6 – Mass Care, Housing, Human Services
- ESF #7 – Resource Support
- ESF #8 – Public Health and Medical Services
- ESF #9 – Urban Search and Rescue
- ESF #10 – Oil and Hazardous Materials Response
- ESF #11 – Agriculture and Natural Resources
- ESF #12 – Energy
- ESF #13 – Public Safety and Security
- ESF #14 – Long-Term Community Recovery and Mitigation
- ESF #15 – External Affairs

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USACE DEBRIS MISSIONS

Direct Federal Assistance (DFA)

USACE executes debris removal operations for requesting applicant.

Technical Assistance (TA)

USACE provides guidance to applicant during their execution of the debris removal.

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DEBRIS PLANNING & RESPONSE TEAMS

- Action Officer
- Mission Manager
- Mission Specialist
- Environmental Engineer
- NEPA Compliance Specialist
- Real Estate Specialist
- Contracting Specialist
- Resident Engineer
- Quality Assurance Supervisor
- Quality Assurance Monitor
- Cost Engineer

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USACE DEBRIS MISSIONS

APPLICANTS

Parish Governments

City Governments

Levee Boards

Port Authorities

School Boards, Schools

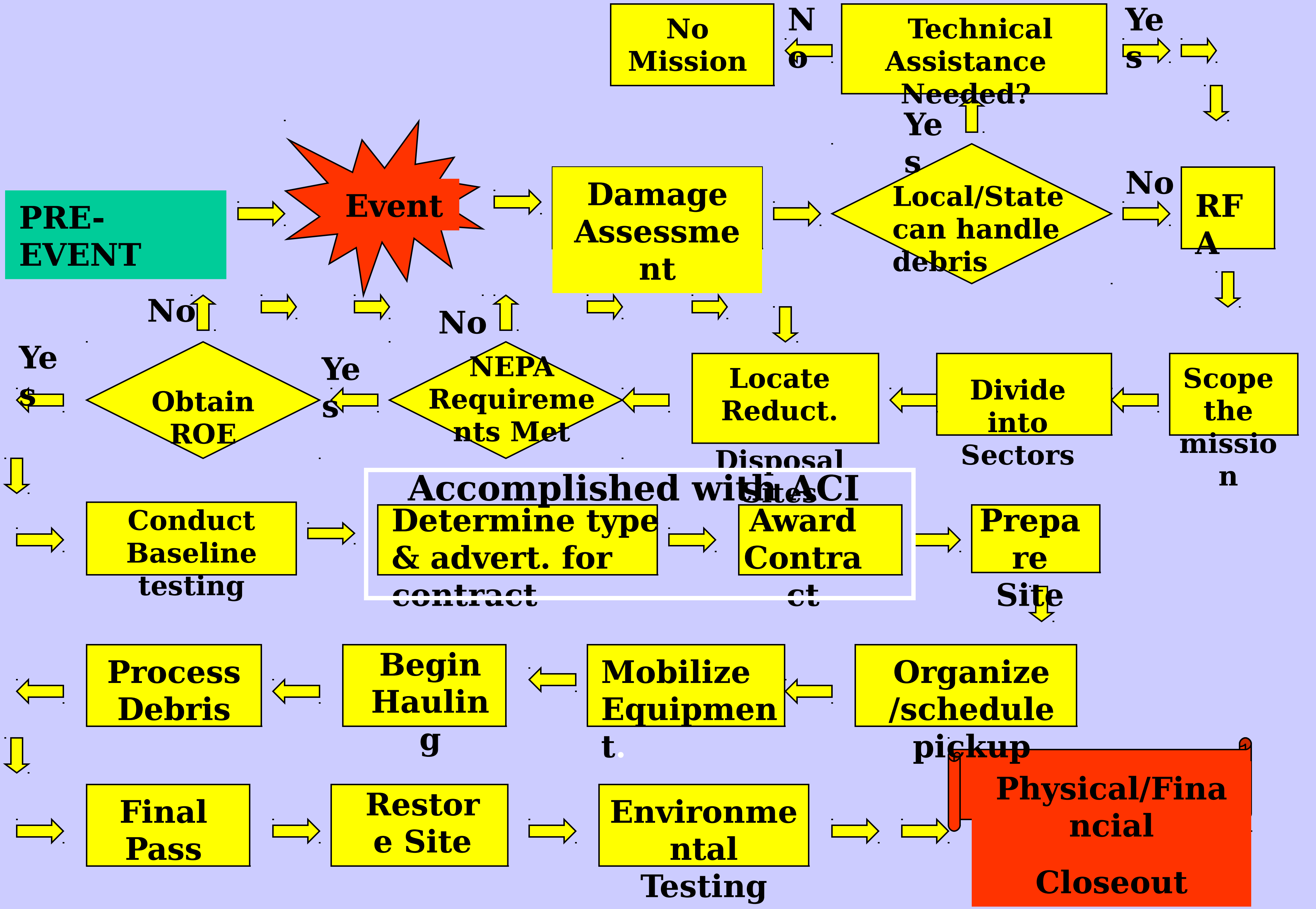
Housing Authorities

Audubon Institute

Utility Boards

Private Non Profit Organizations (PNPs)

EVOLUTION OF A DEBRIS MISSION



PRE-EVENT

Event

Damage Assessment

Local/State can handle debris

No

RFA

Yes

Technical Assistance Needed?

No

No Mission

Yes

Scope the mission

Divide into Sectors

Locate Reduct. Disposal Sites

NEPA Requirements Met

No

Yes

Obtain ROE

No

Yes

Conduct Baseline testing

Accomplished with ACI

Determine type & advert. for contract

Award Contract

Prepare Site

Organize /schedule pickup

Mobilize Equipment

Begin Hauling

Process Debris

Final Pass

Restore Site

Environmental Testing

Physical/Financial Closeout

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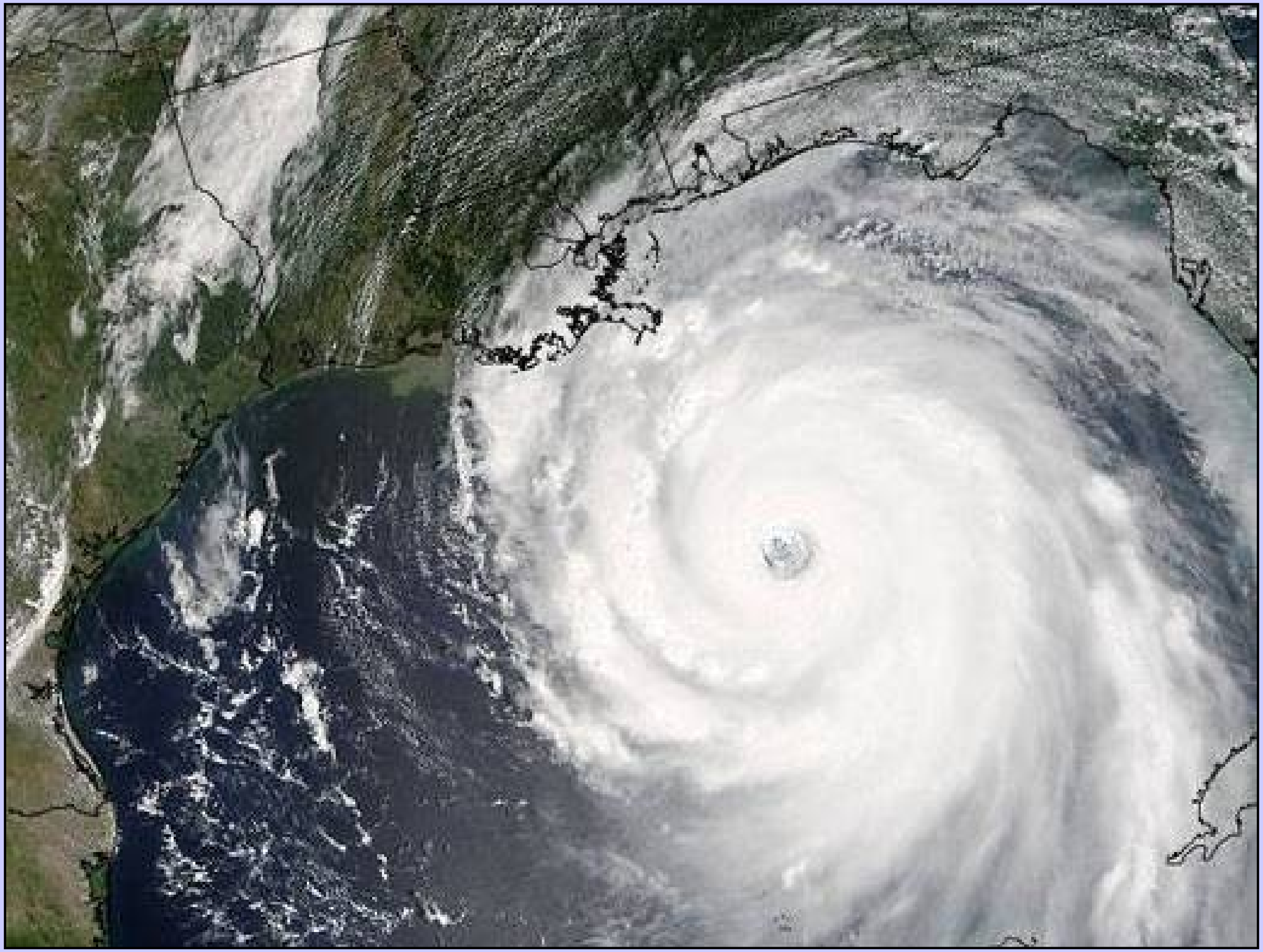
Hurricane Katrina

28 August 2005



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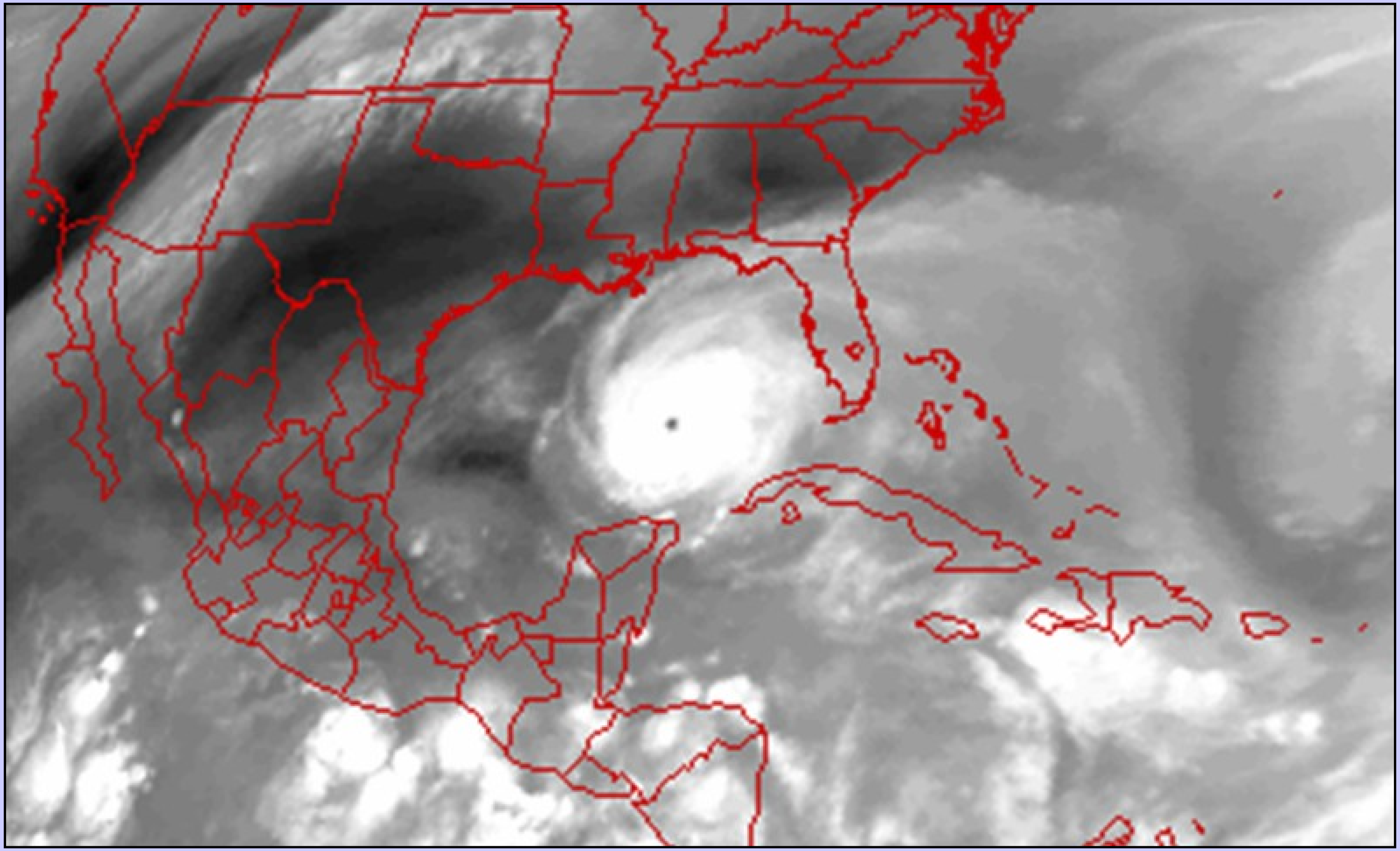
Hurricane Rita

24 September 2005



TASK FORCE HOPE

ST. PAUL • ROCK ISLAND • ST. LOUIS • MEMPHIS • VICKSBURG • NEW ORLEANS •
MISSISSIPPI VALLEY DIVISION
HURRICANE KATRINA
2005
US Army Corps of Engineers
TASK FORCE HOPE

Mission: Provide civil works emergency support to FEMA in Mississippi and Louisiana in response to Hurricanes

US Army Corps
of Engineers

DEBRIS QUANTITY ESTIMATES

USACE Hurricane Katrina

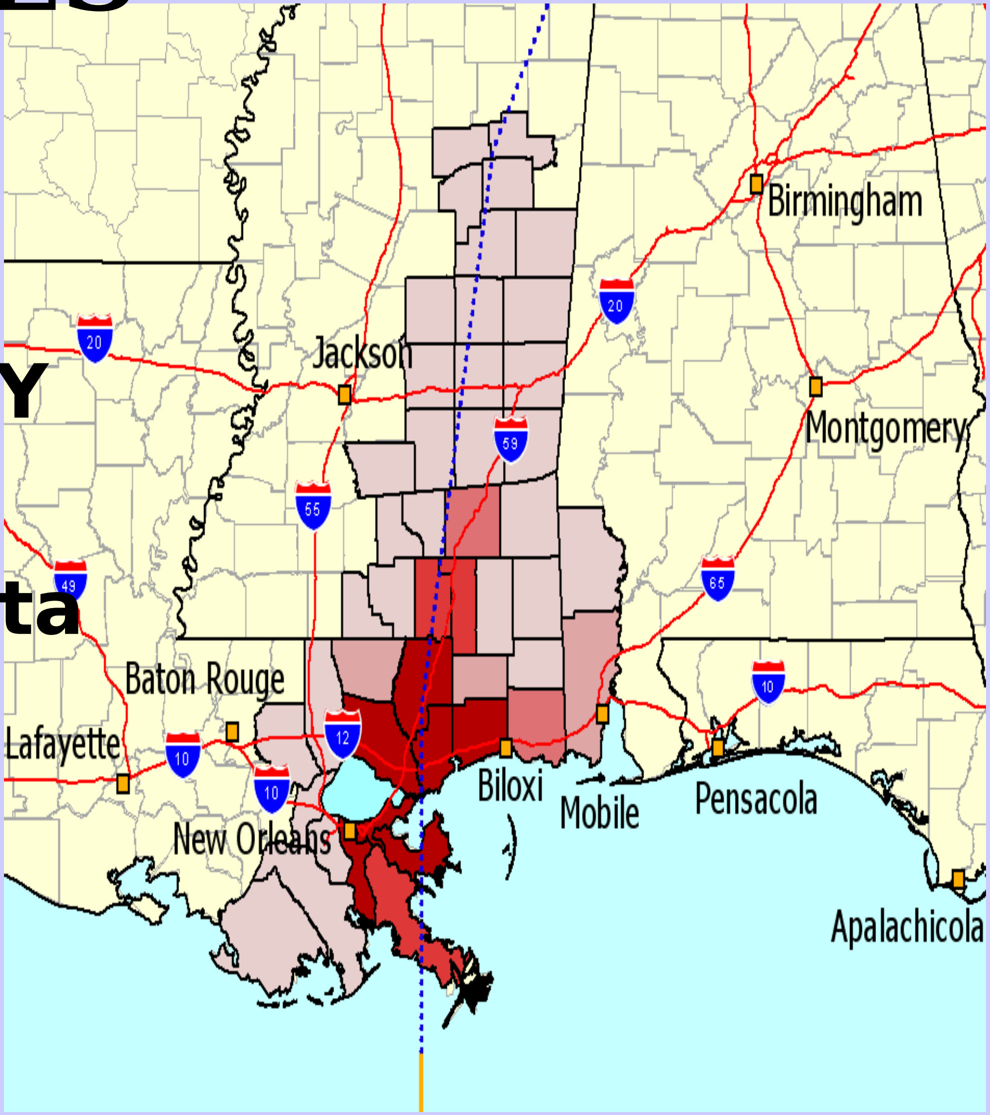
Debris

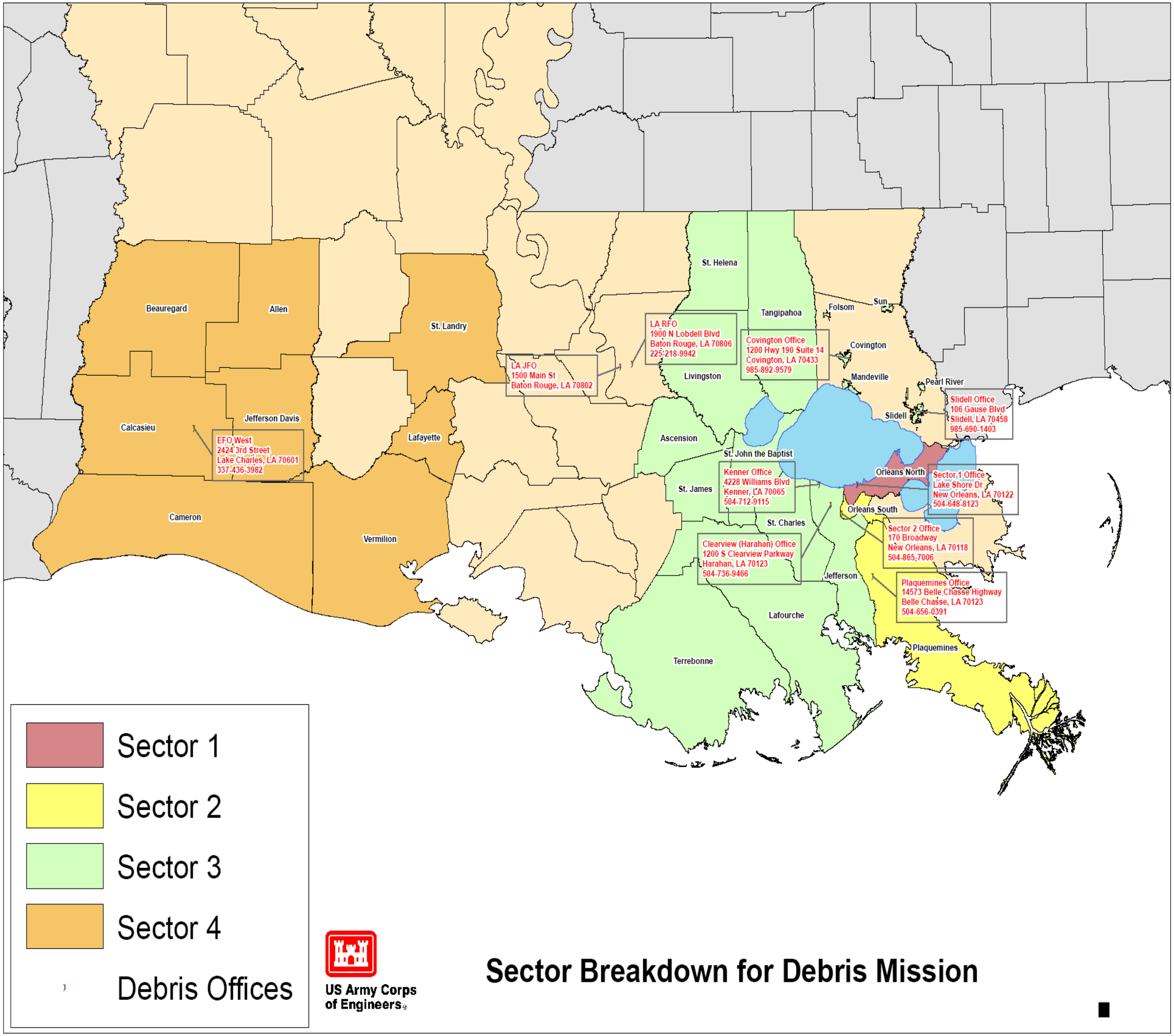
Louisiana: 20.7 MCY

USACE Hurricane Rita

Debris

Louisiana: 6.3 MCY

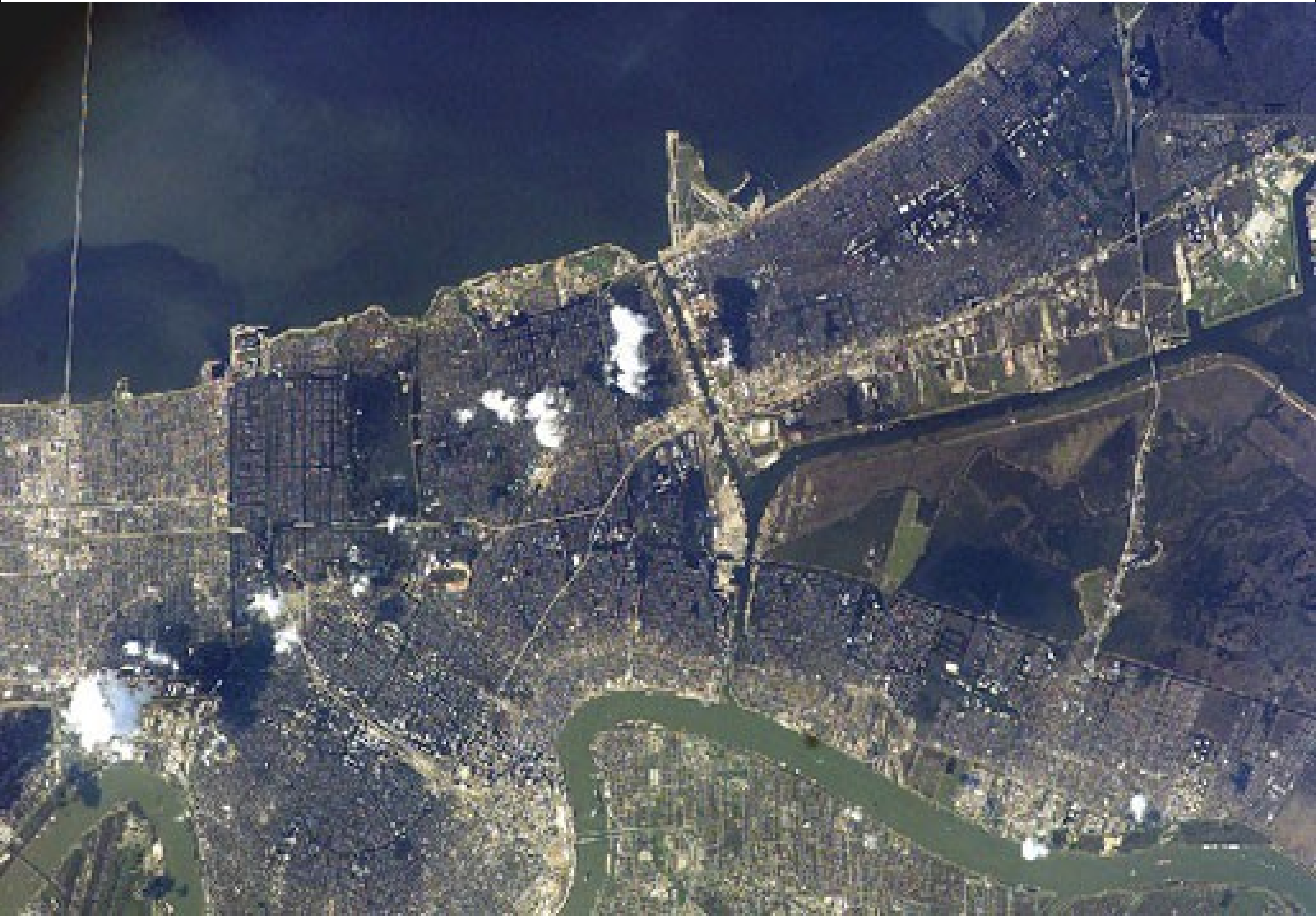

Birmingham
20
20
Jackson
Montgomery
59
55
49
65
10
Baton Rouge
12
Lafayette
10
10
Biloxi
Mobile
Pensacola
New Orleans
Apalachicola


St. Helena
Tangipahoa
Folsom
Sun
Covington
Mandeville
Pearl River
Slidell
Beauregard
Allen
St. Landry
Calcasieu
Jefferson Davis
Lafayette
Cameron
Vermilion
Livingston
Ascension
St. John the Baptist
St. James
St. Charles
Orleans North
Orleans South
Jefferson
Lafourche
Terrebonne
Plaquemines
LA RFO
1900 N Lobdell Blvd
Baton Rouge, LA 70806
225-218-9942
LA JFO
1500 Main St
Baton Rouge, LA 70802
Covington Office
1200 Hwy 190 Suite 14
Covington, LA 70433
985-892-9579
Slidell Office
106 Gause Blvd
Slidell, LA 70458
985-690-1403
EFO West
2424 3rd Street
Lake Charles, LA 70601
337-436-3982
Kenner Office
4228 Williams Blvd
Kenner, LA 70065
504-712-9115
Sector 1 Office
Lake Shore Dr
New Orleans, LA 70122
504-648-8123
Sector 2 Office
170 Broadway
New Orleans, LA 70118
504-865-7006
Clearview (Harahan) Office
1200 S Clearview Parkway
Harahan, LA 70123
504-736-9466
Plaquemines Office
14573 Belle Chasse Highway
Belle Chasse, LA 70123
504-656-0391
🟥 Sector 1
🟨 Sector 2
🟩 Sector 3
🟧 Sector 4
Debris Offices

US Army Corps of Engineers

Sector Breakdown for Debris Mission

80% of New Orleans flooded



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FLOODING IMPACTS ON DEBRIS MISSION

Quantities Increased

Debris Streams Expanded

Duration of Mission Increased

Potential Demolitions Increased

Disposal Facility Impacts

Environmental Concerns

Subcontractors and Personnel Availability

TASK FORCE HOPE
MISSISSIPPI
EMERGENCY OPERATIONS
US Army Corps of Engineers

41 of 45 Corps of Engineer Districts participated in relief efforts

8,000 USACE personnel deployed

210,000 USACE Manhours utilized

DEBRIS REMOVAL

Debris Streams:

Vegetative Debris

Construction & Demolition Debris (C&D)

White Goods (Appliances)

Stumps, Leaners/Hangers

Municipal Solid Waste (MSW)

Waste Segregation, Household Hazardous Waste, HHW

Demolition

Meat Mission

Canal Clearing

Sediment Removal

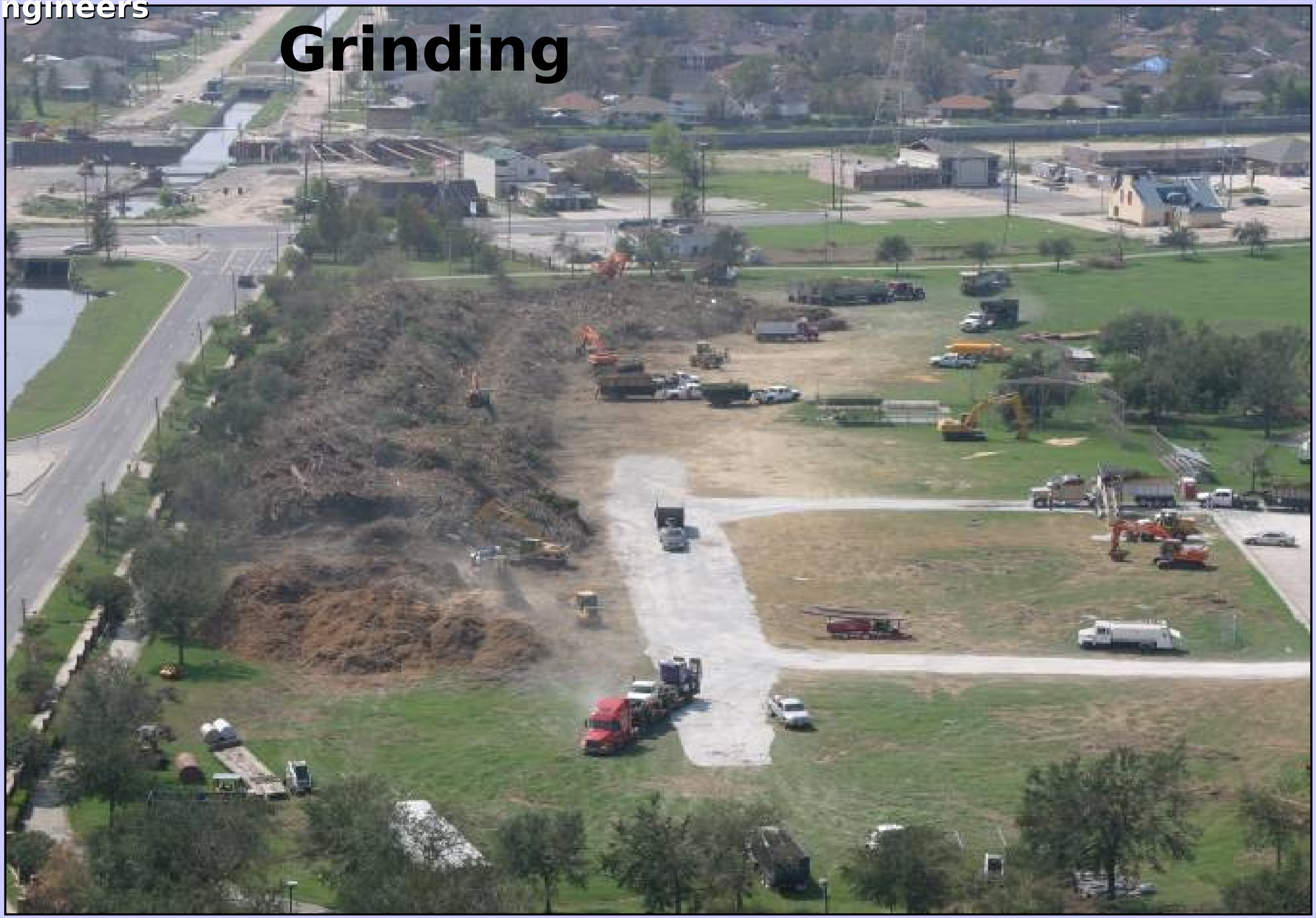
Vegetative Debris Removal

CATERPILLAR
Louisiana Machinery
CAT
CAT

US Army
Corps
of Engineers
®

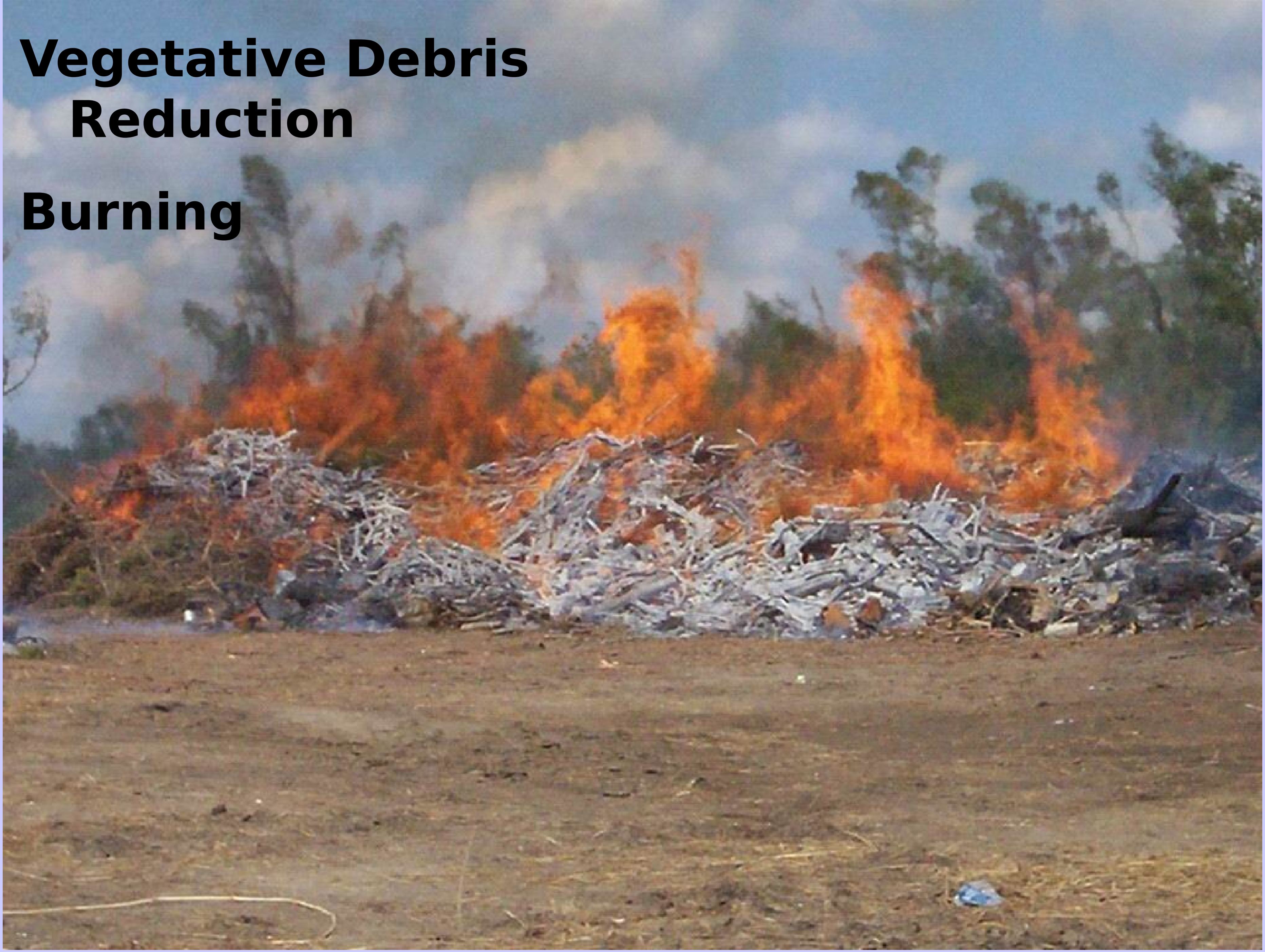
Vegetative Debris Reduction

Grinding



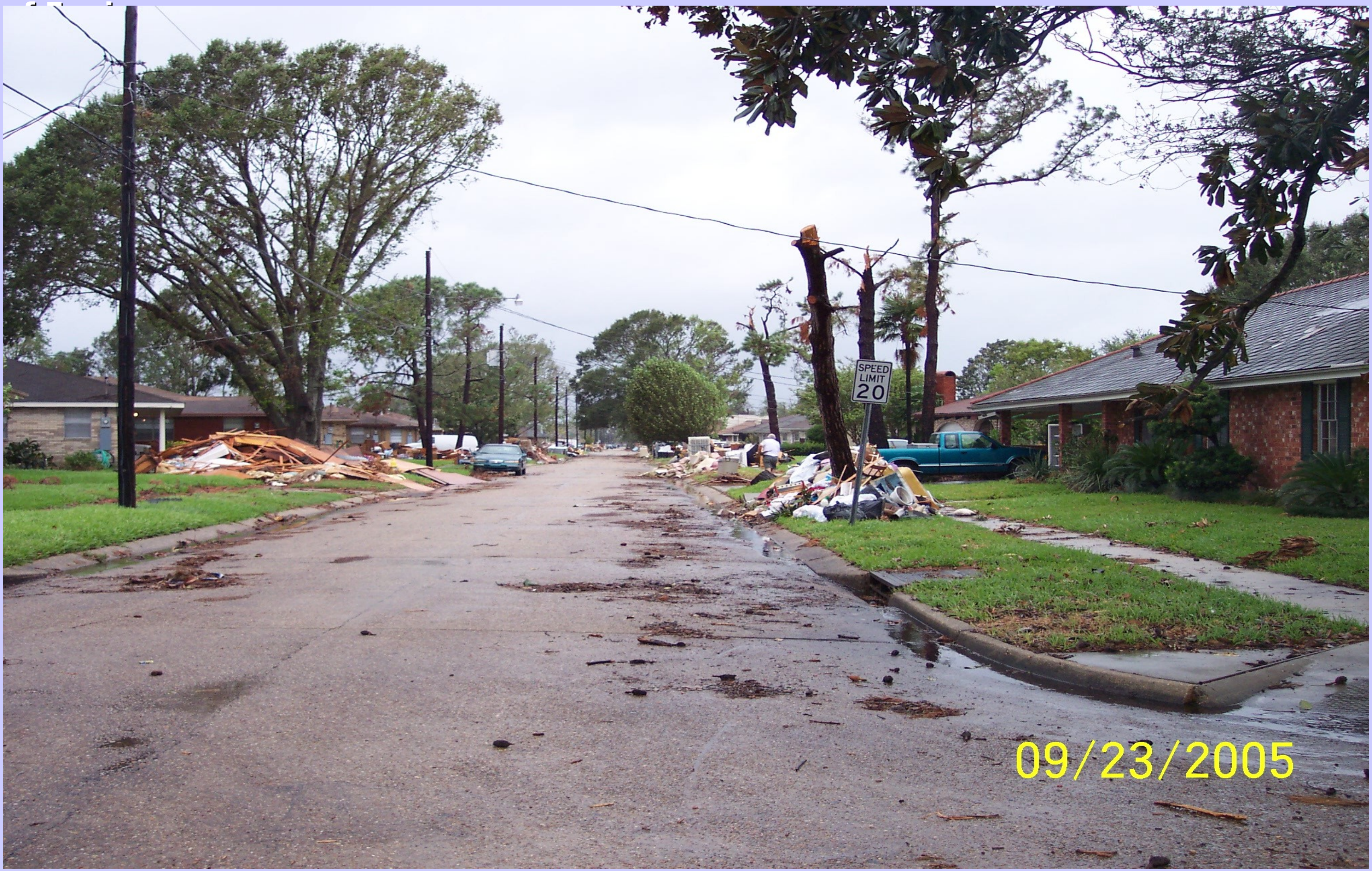
Vegetative Debris Reduction

Burning



US Army
Corps

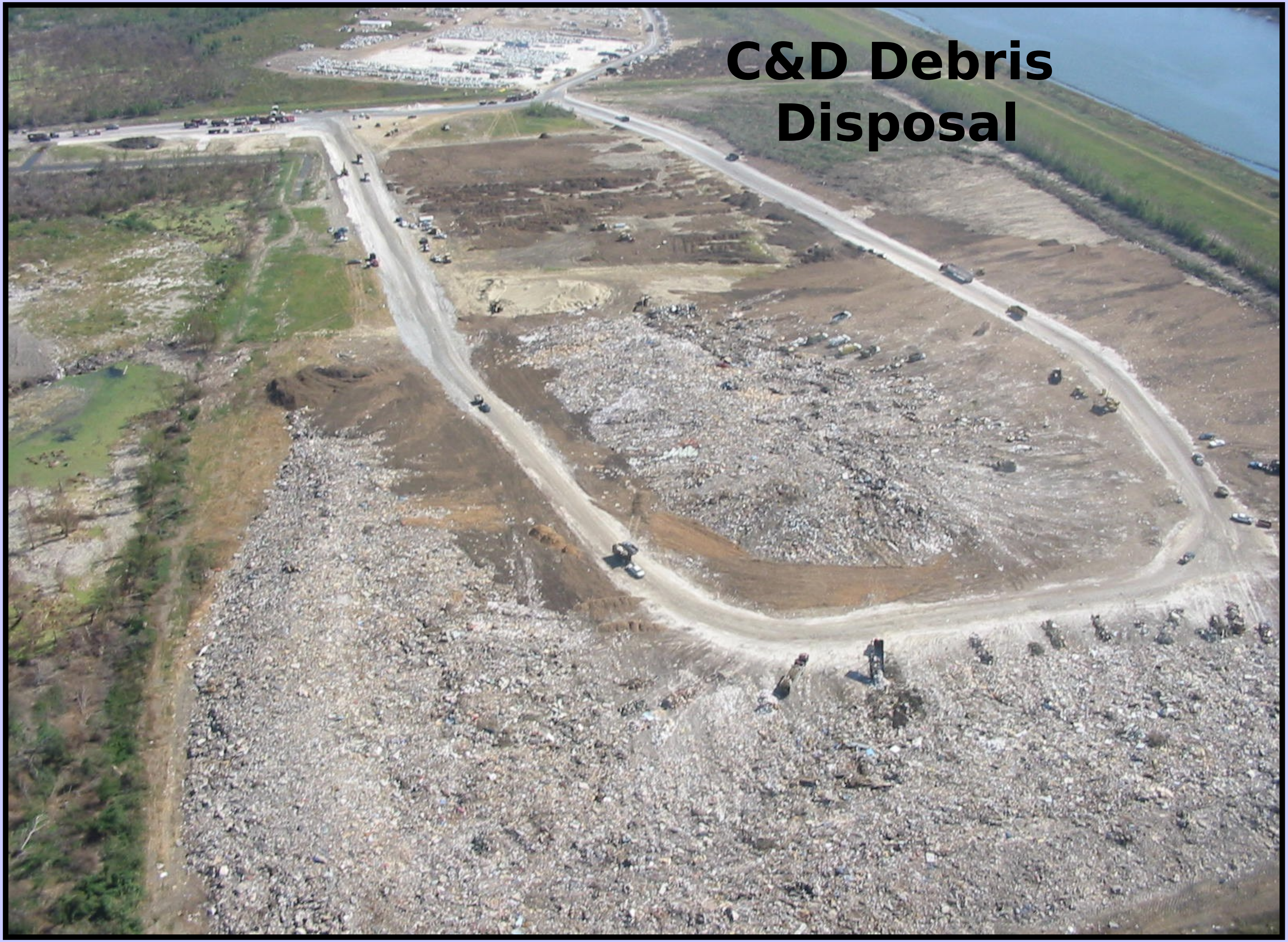
Construction & Demolition Debris


SPEED
LIMIT
20
09/23/2005

VOLVO
DUMP'R

C&D Debris Removal

C&D Debris Disposal



PICKING UP THE PIECES

Following these specific guidlines when hauling hurricane-related debris and household garbage to the curb will make for a speedier removal process

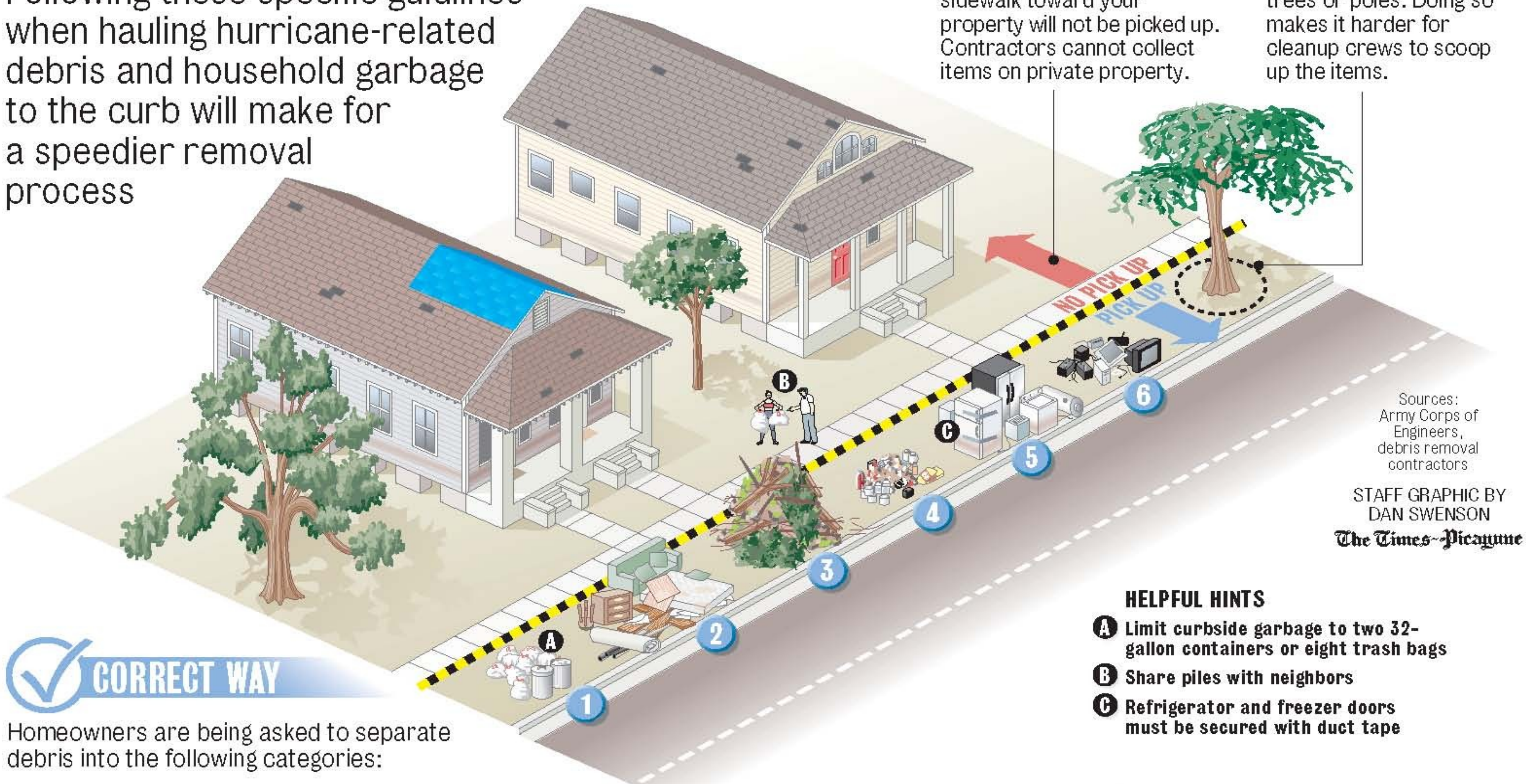
WRONG WAY

CROSSING THE LINE

- Any debris placed from the sidewalk toward your property will not be picked up. Contractors cannot collect items on private property.

PROPPING UP

- Do not set debris against trees or poles. Doing so makes it harder for cleanup crews to scoop up the items.



Sources: Army Corps of Engineers, debris removal contractors

STAFF GRAPHIC BY DAN SWENSON

The Times-Picayune

HELPFUL HINTS

- **Ⓐ Limit curbside garbage to two 32-gallon containers or eight trash bags**
- **Ⓑ Share piles with neighbors**
- **Ⓒ Refrigerator and freezer doors must be secured with duct tape**

CORRECT WAY

Homeowners are being asked to separate debris into the following categories:

① HOUSEHOLD GARBAGE

- Bagged trash
- Discarded food
- Packaging, papers
- All garbage should be placed curbside the night before the scheduled weekly pickup.

② CONSTRUCTION DEBRIS

- Building materials
- Drywall
- Lumber
- Carpet
- Furniture
- Mattresses
- Plumbing

③ VEGETATION DEBRIS

- Tree branches
- Leaves
- Logs

④ HOUSEHOLD HAZARDOUS WASTE

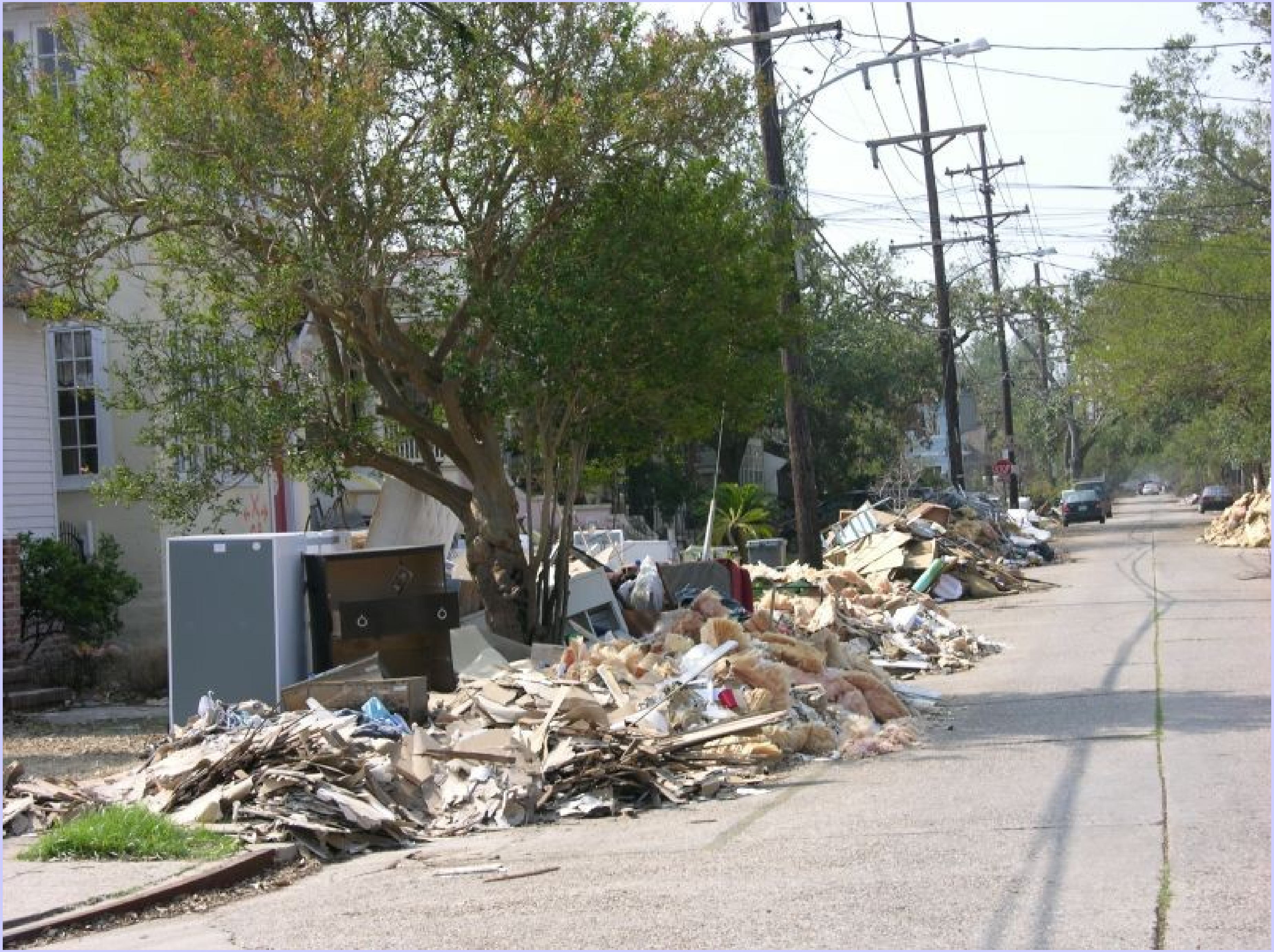
- Oils
- Batteries
- Pesticides
- Paints
- Cleaning supplies
- Compressed gas

⑤ 'WHITE' GOODS

- Refrigerators
- Washers, dryers
- Freezers
- Air conditioners
- Stoves
- Water heaters
- Dishwashers

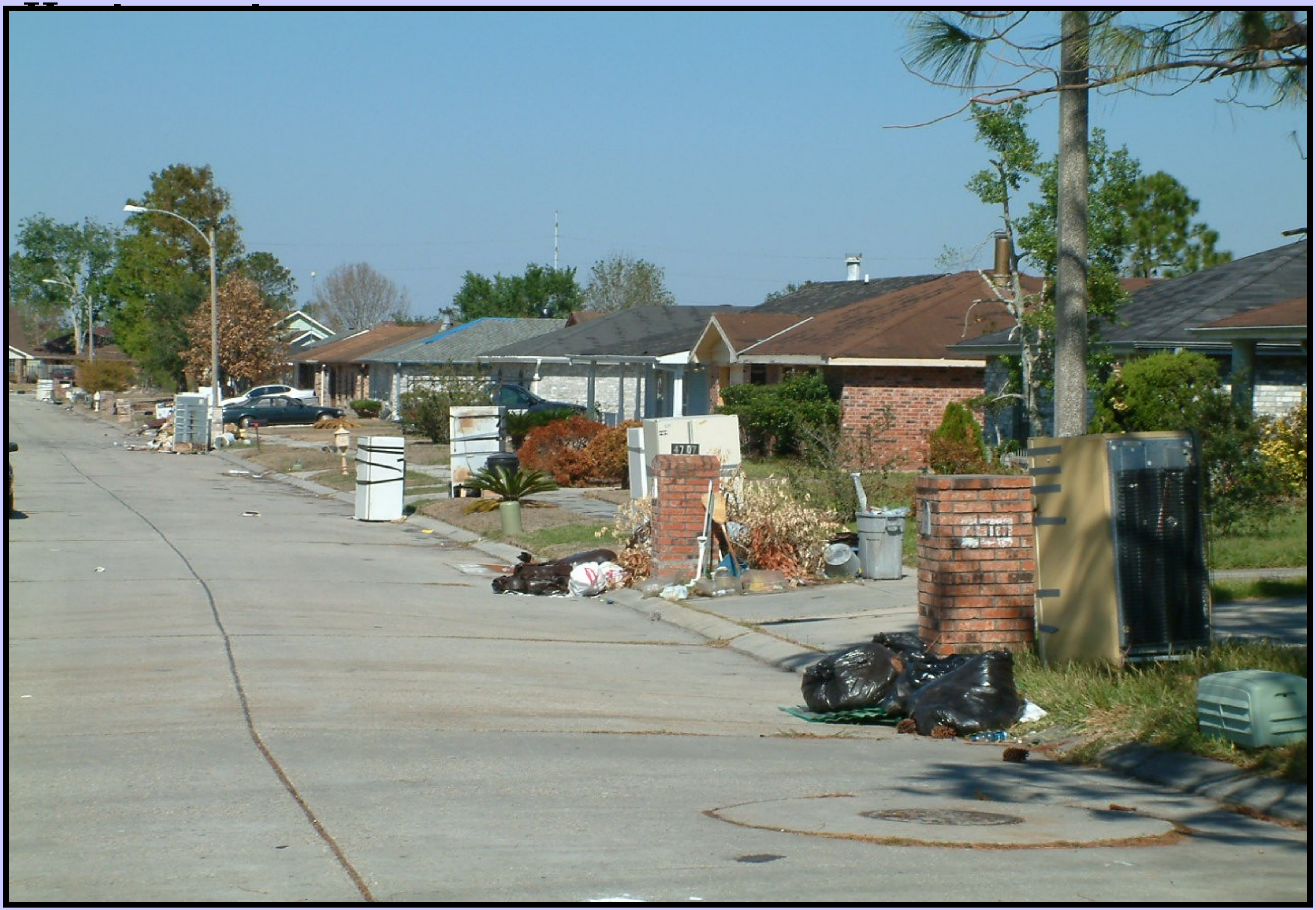
⑥ ELECTRONICS

- Televisions
- Computers
- Radios
- Stereos
- DVD players
- Telephones

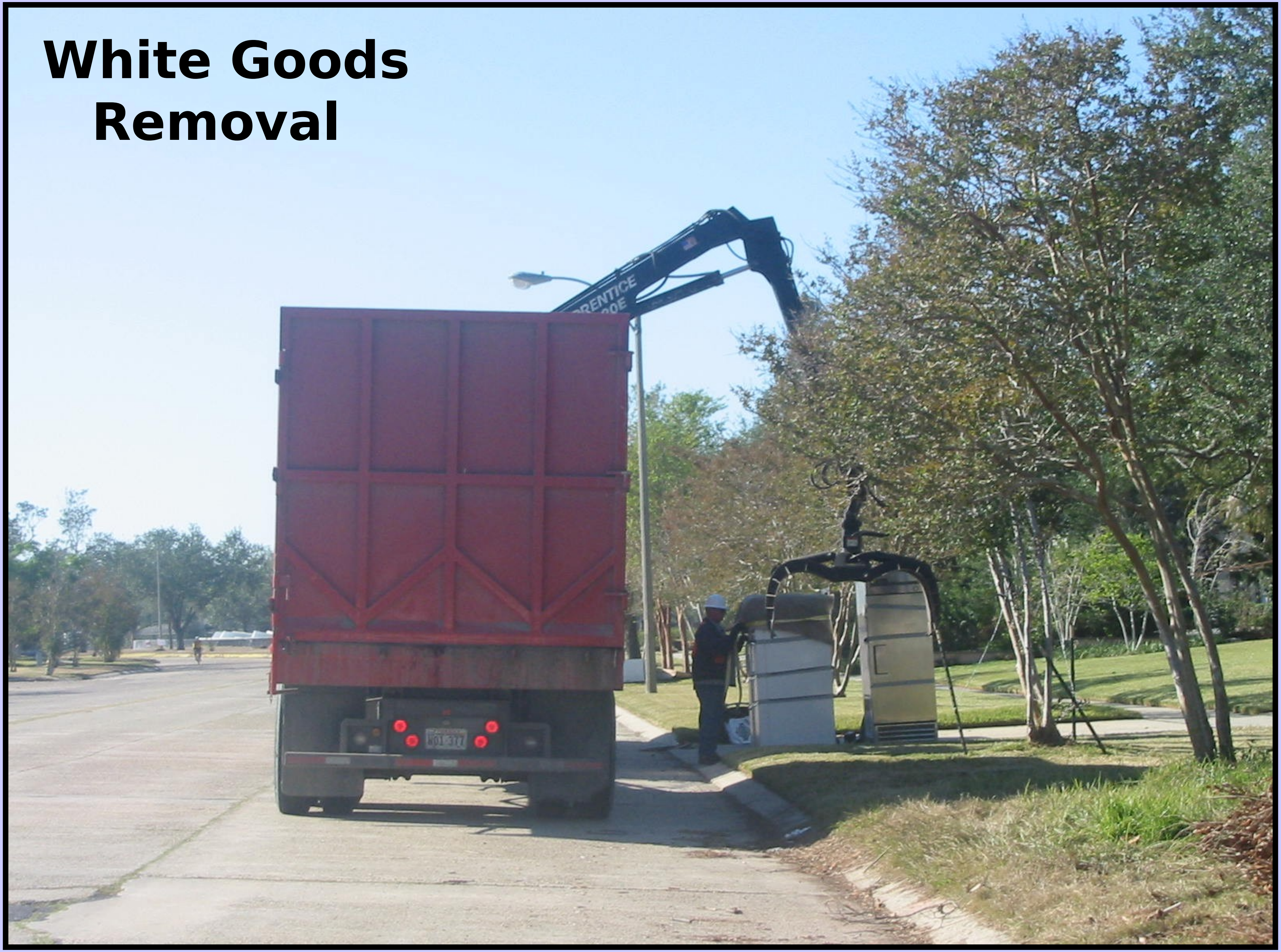


White Goods

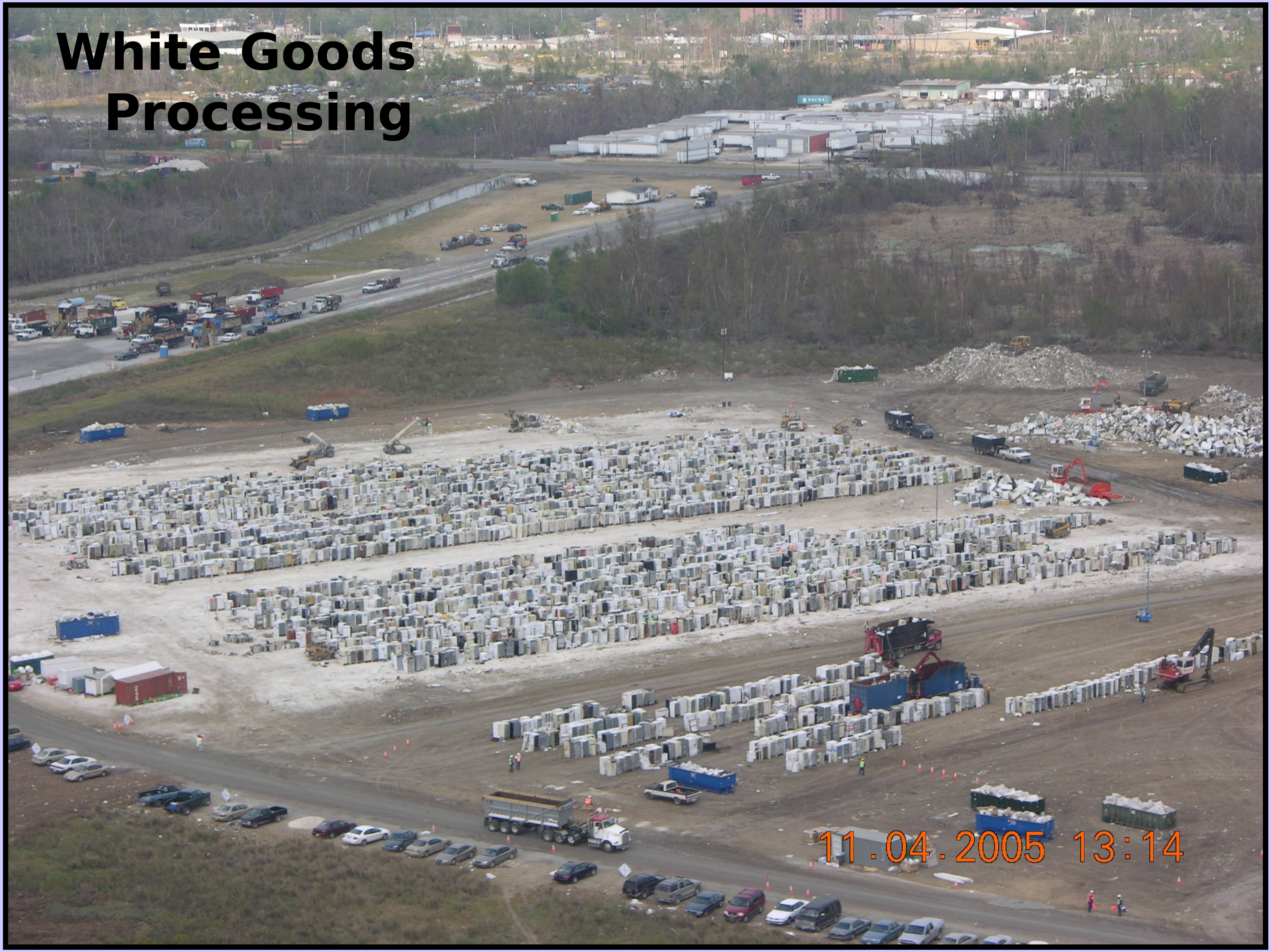
Refrigerators, Freezers, Washers, Dryers, Hot Water



White Goods Removal



White Goods Processing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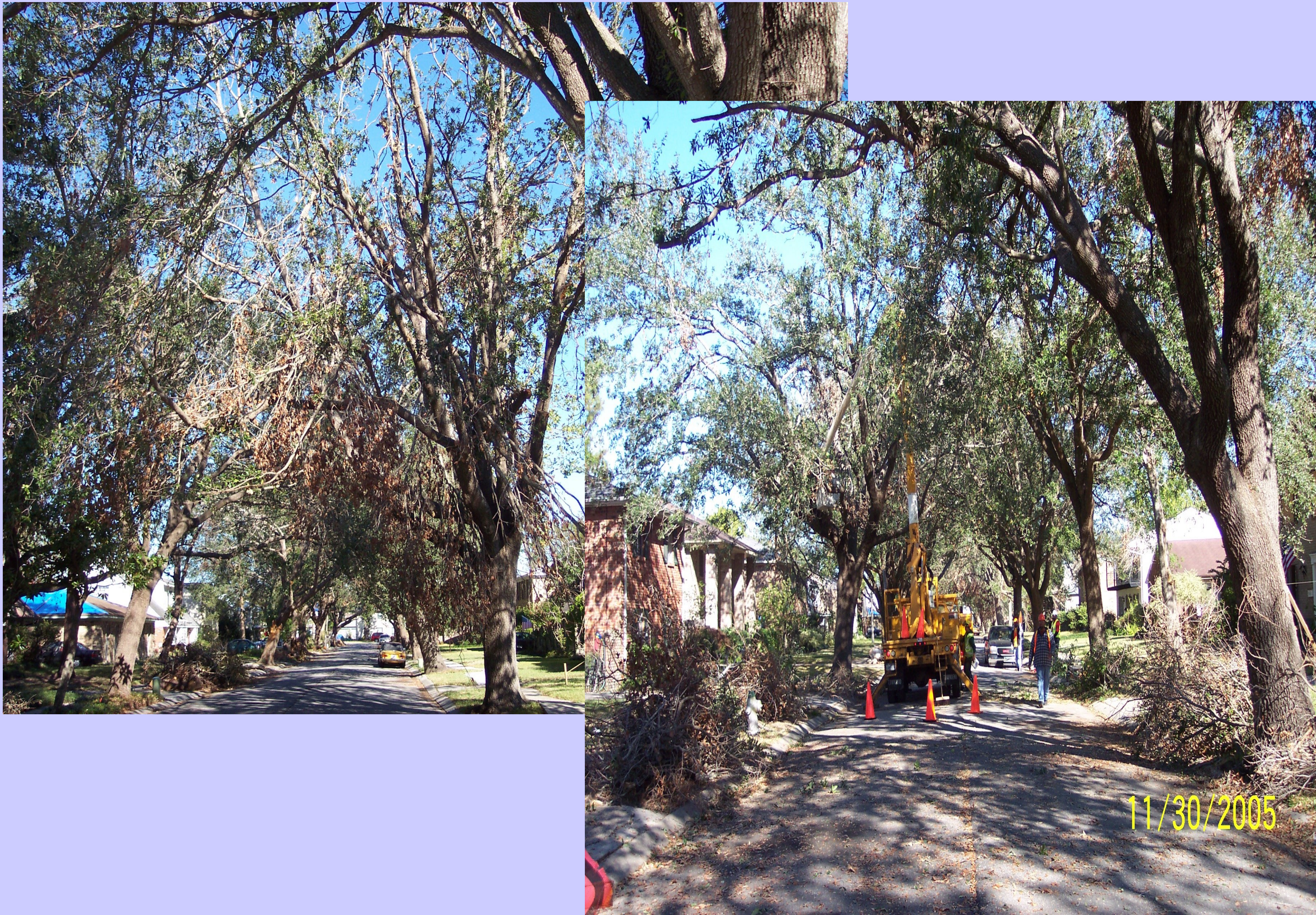
Stumps, Leaners & Hangers



11/30/2005

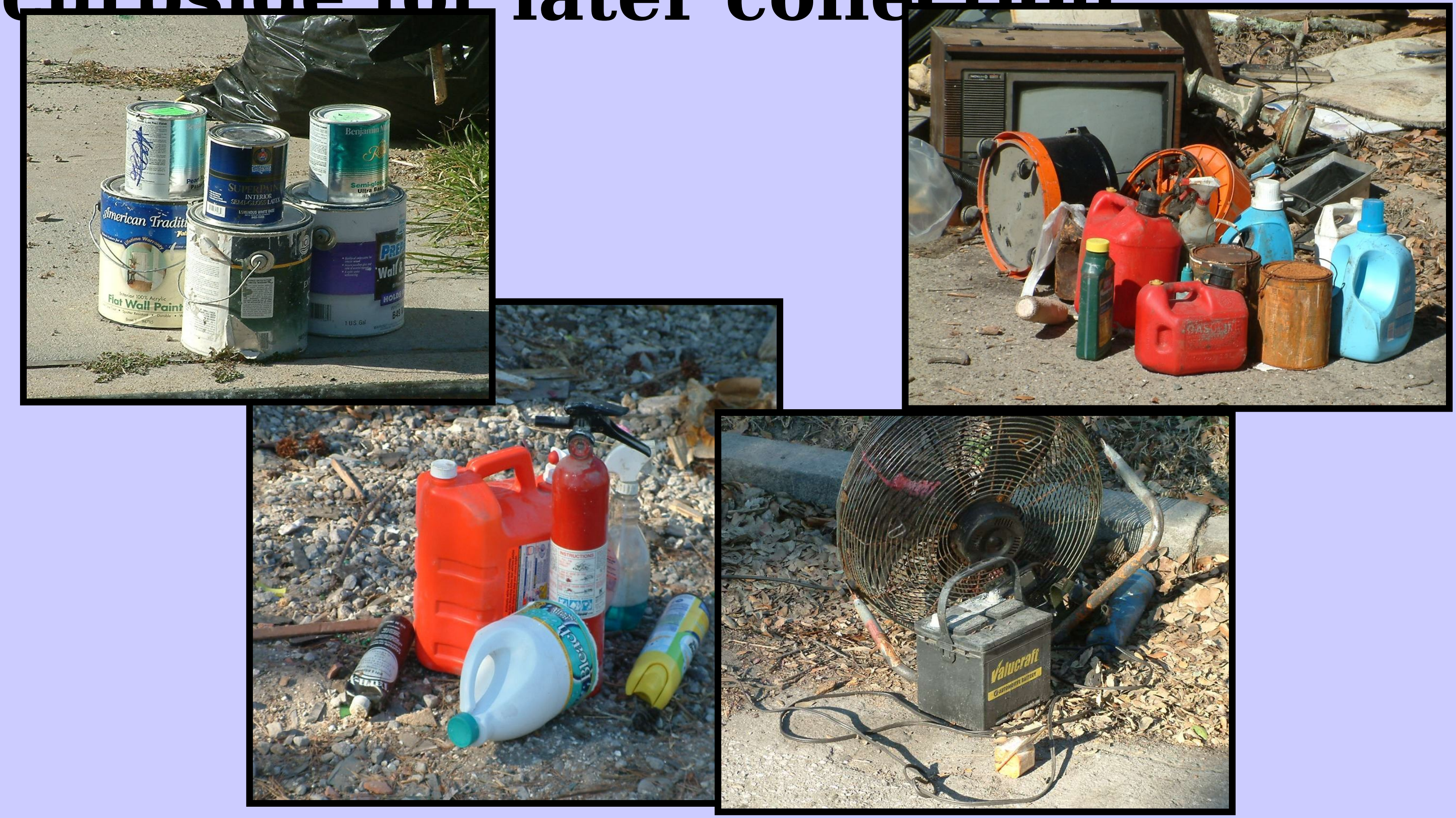
Municipal Solid Waste

Waste Segregation

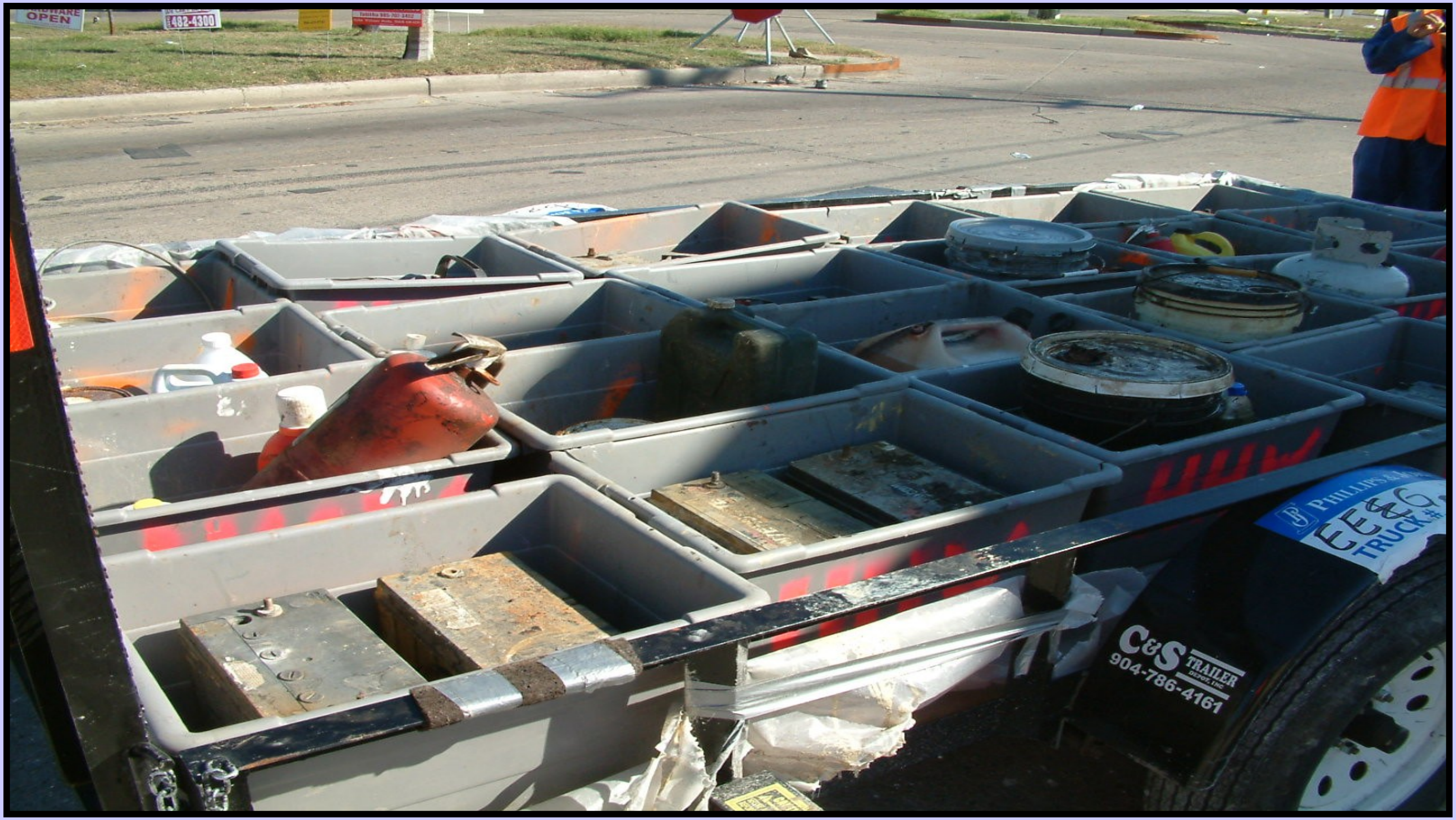
Household Hazardous Waste (HHW)
Asbestos Containing Material (ACM)
Electronic Waste (e-waste)
Small Motorized Equipment (SME)

Curbside debris piles are examined for Household Hazardous Waste.

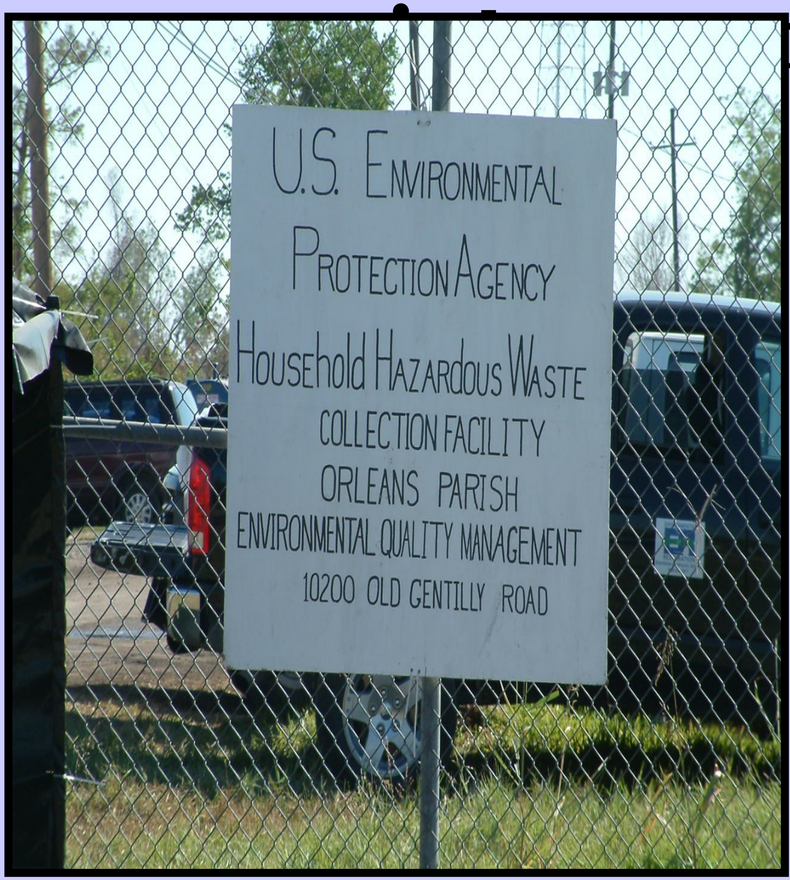
Household hazardous items are segregated and accumulated curbside for later collection

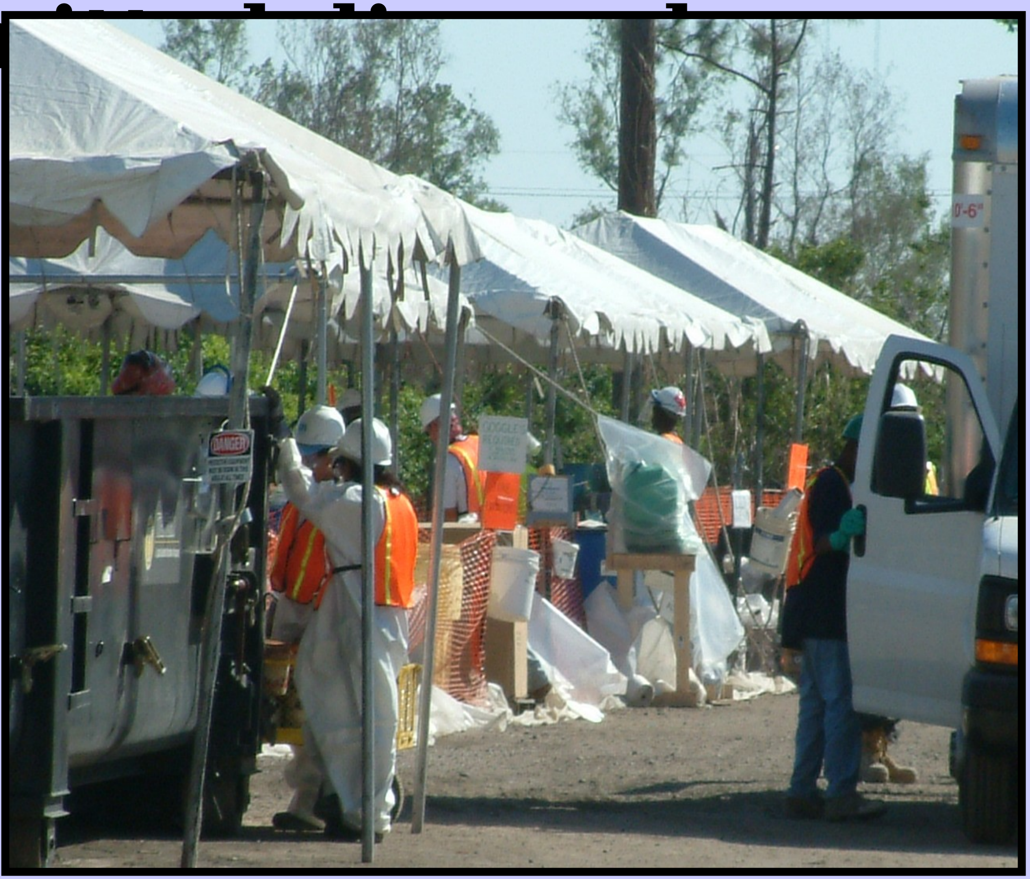

American Traditi
Flat Wall Paint
SUPERPAINT
INTERIOR
SEMI-GLOSS LATEX
Benjamin M
GASOLINE
INSTRUCTIONS
Valucraft

HHW transported to EPA managed HHW collection facility

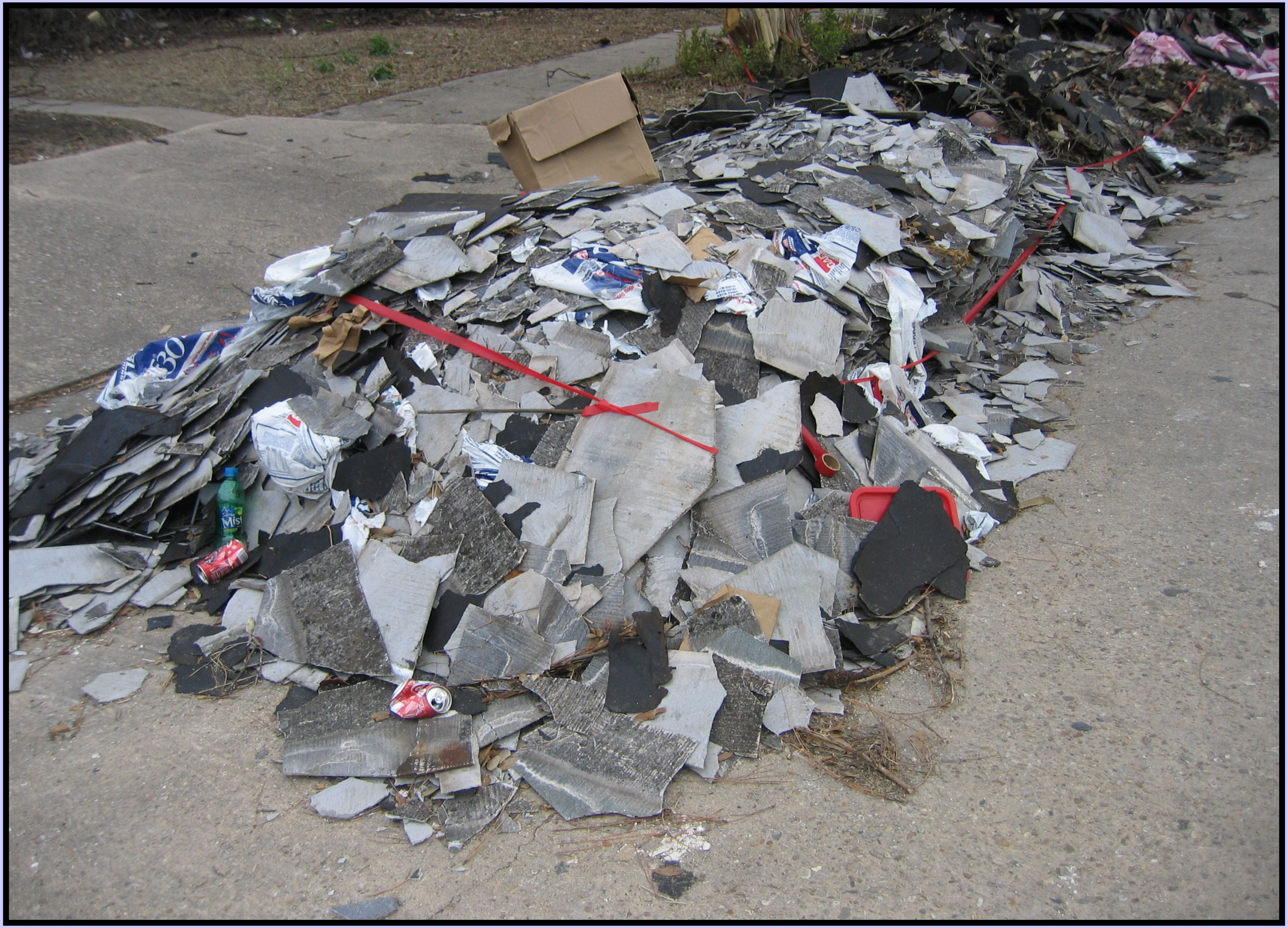

OPEN
482-4300
HHW
PHILLIPS
EEEG
TRUCK #
C&S TRAILER
904-786-4161

At the EPA HHW Collection Facility environmental technicians consolidate and manifest the HHW streams for transportation to the

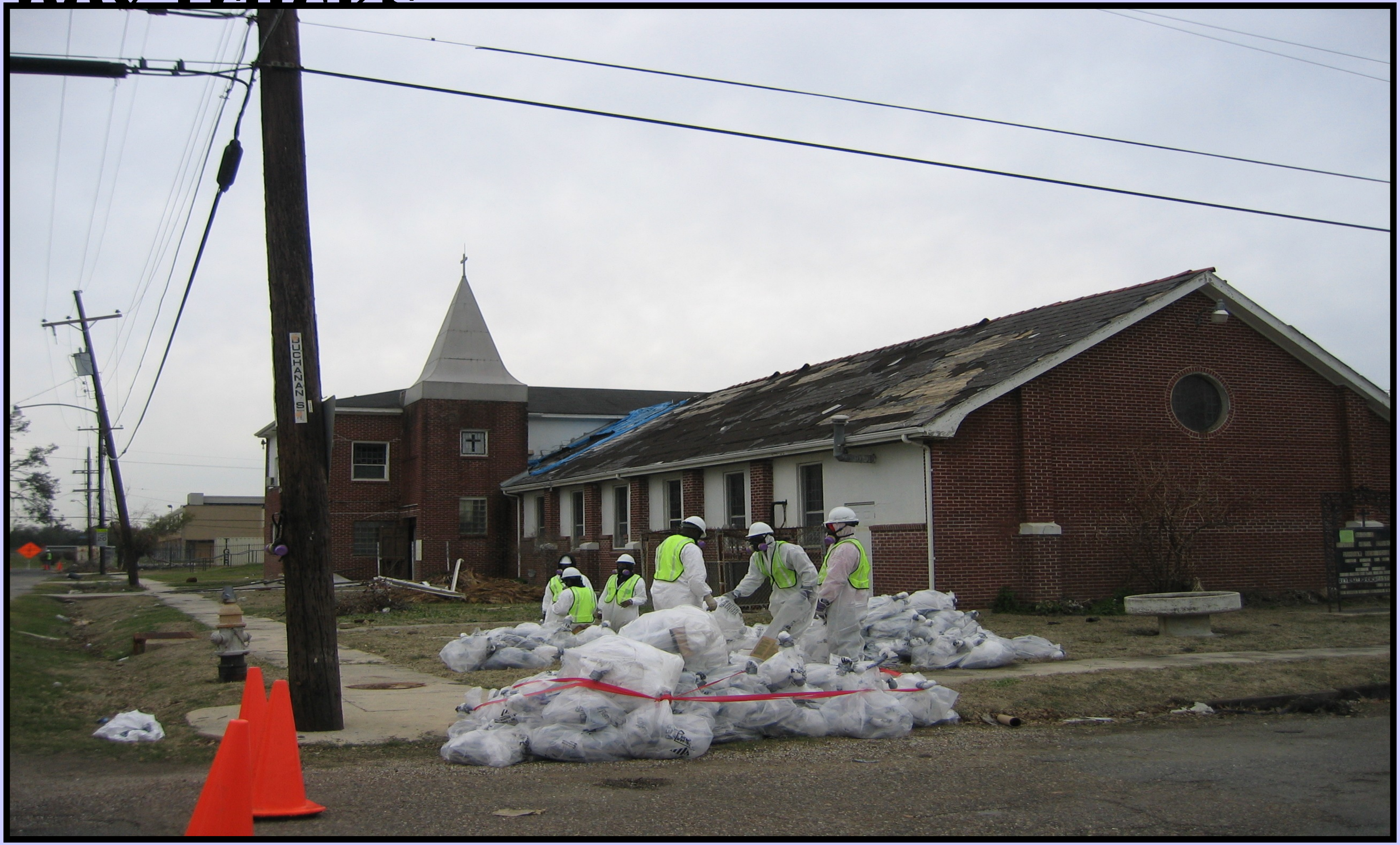

U.S. ENVIRONMENTAL
PROTECTION AGENCY
Household Hazardous Waste
COLLECTION FACILITY
ORLEANS PARISH
ENVIRONMENTAL QUALITY MANAGEMENT
10200 OLD GENTILLY ROAD



Asbestos Containing Materials (ACM)



ACM is wetted, picked up, and double bagged before loading onto box trucks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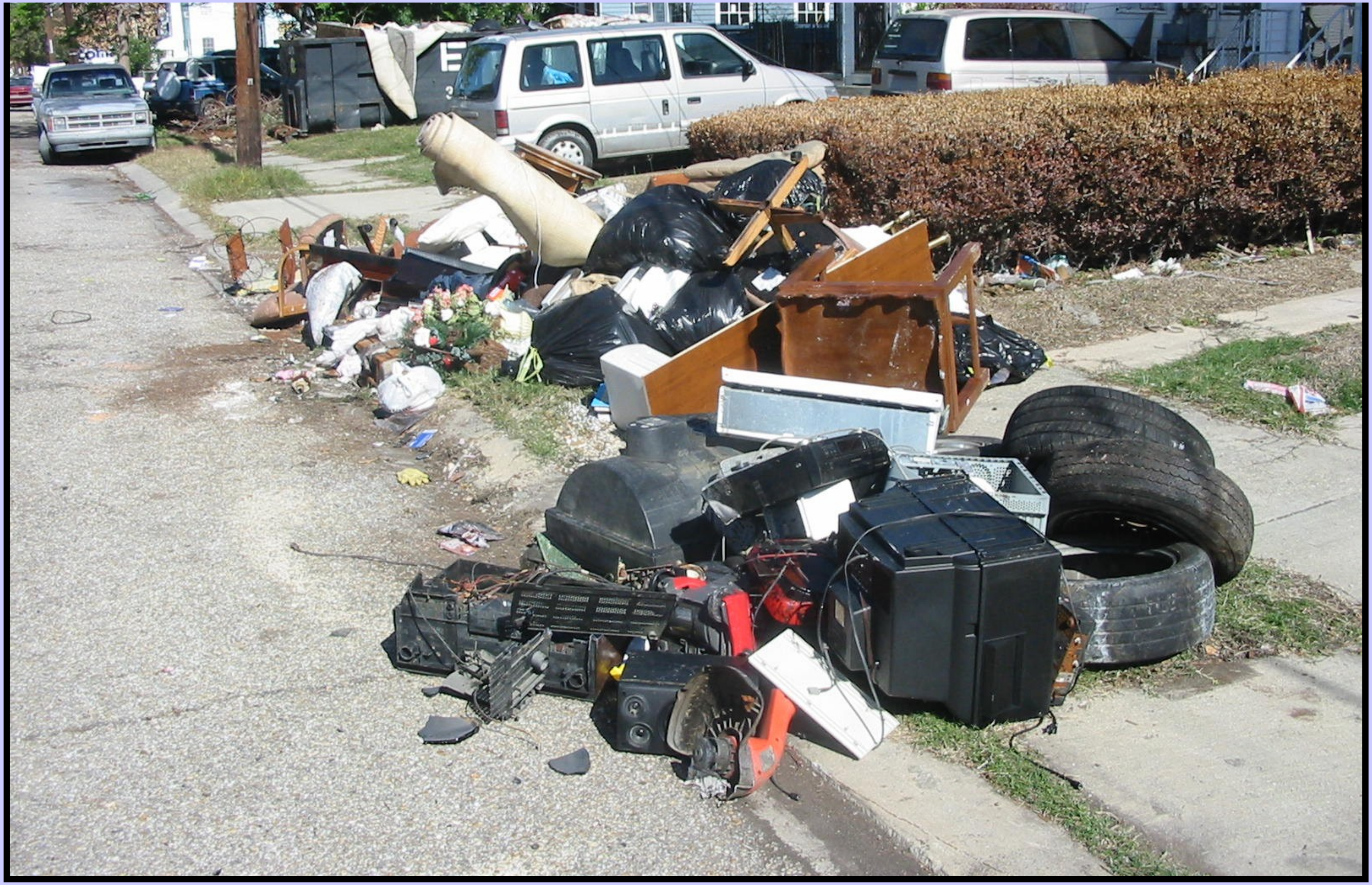
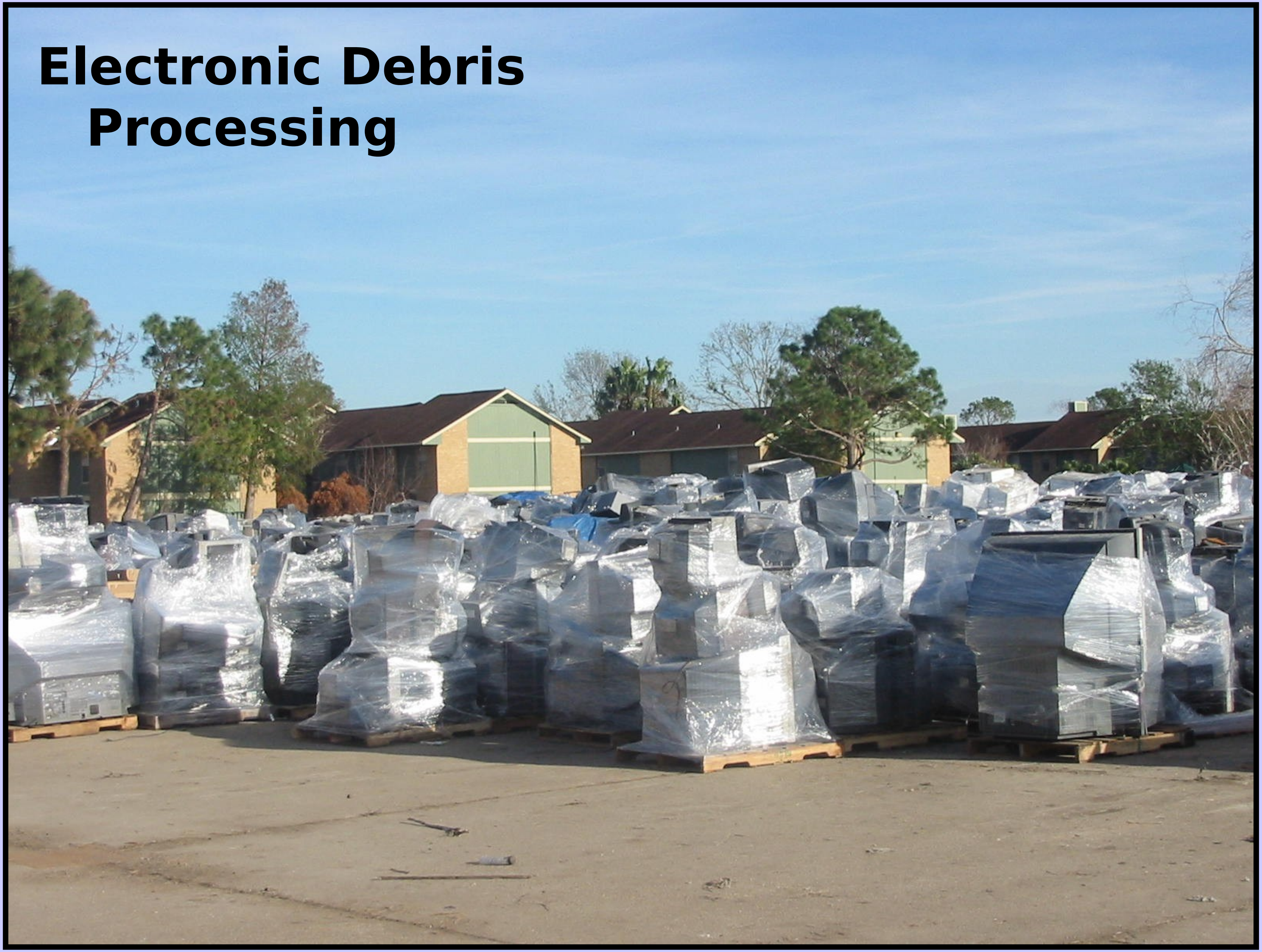
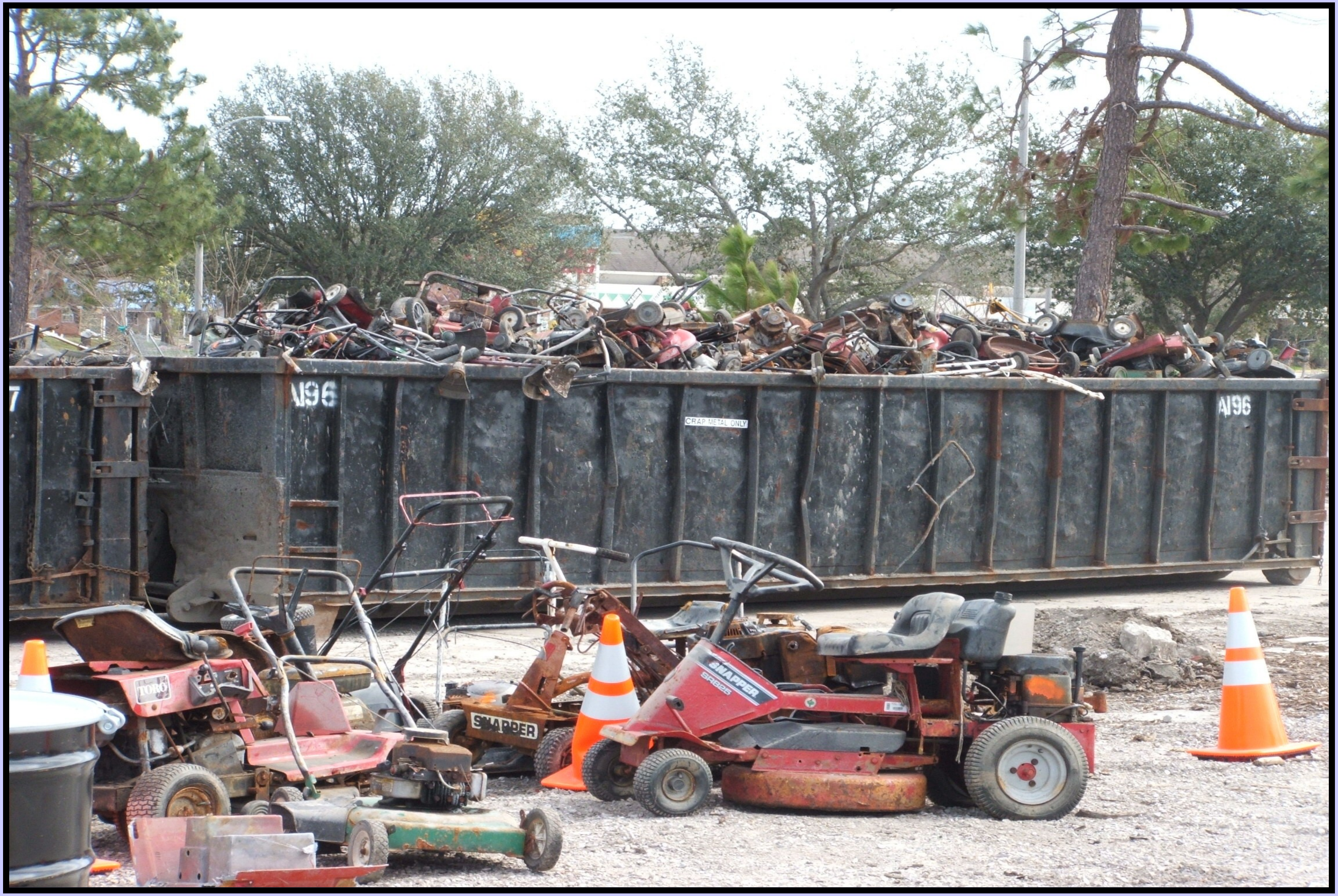
Electronic Debris



Electronic Debris Processing



Small Motorized Equipment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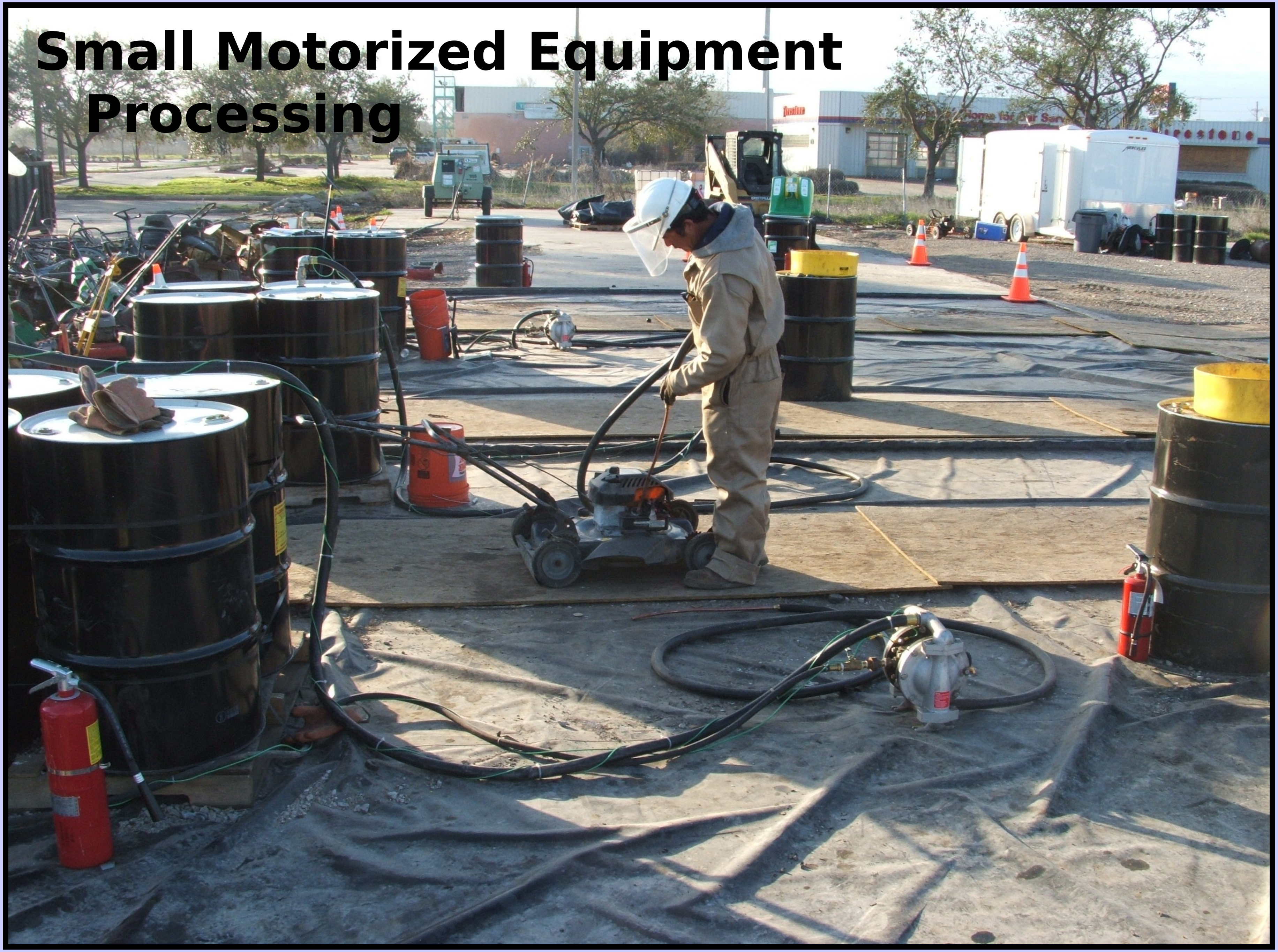
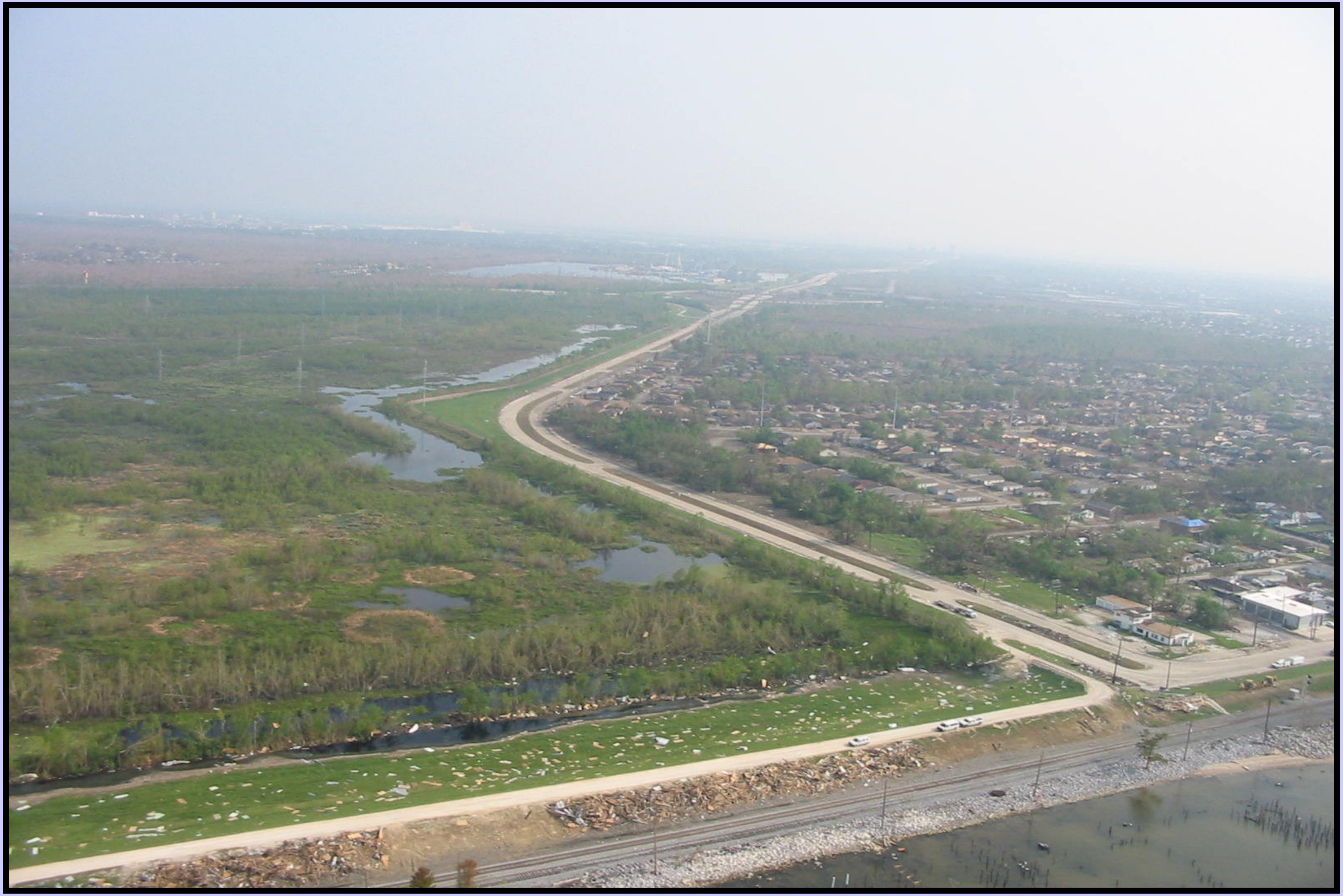
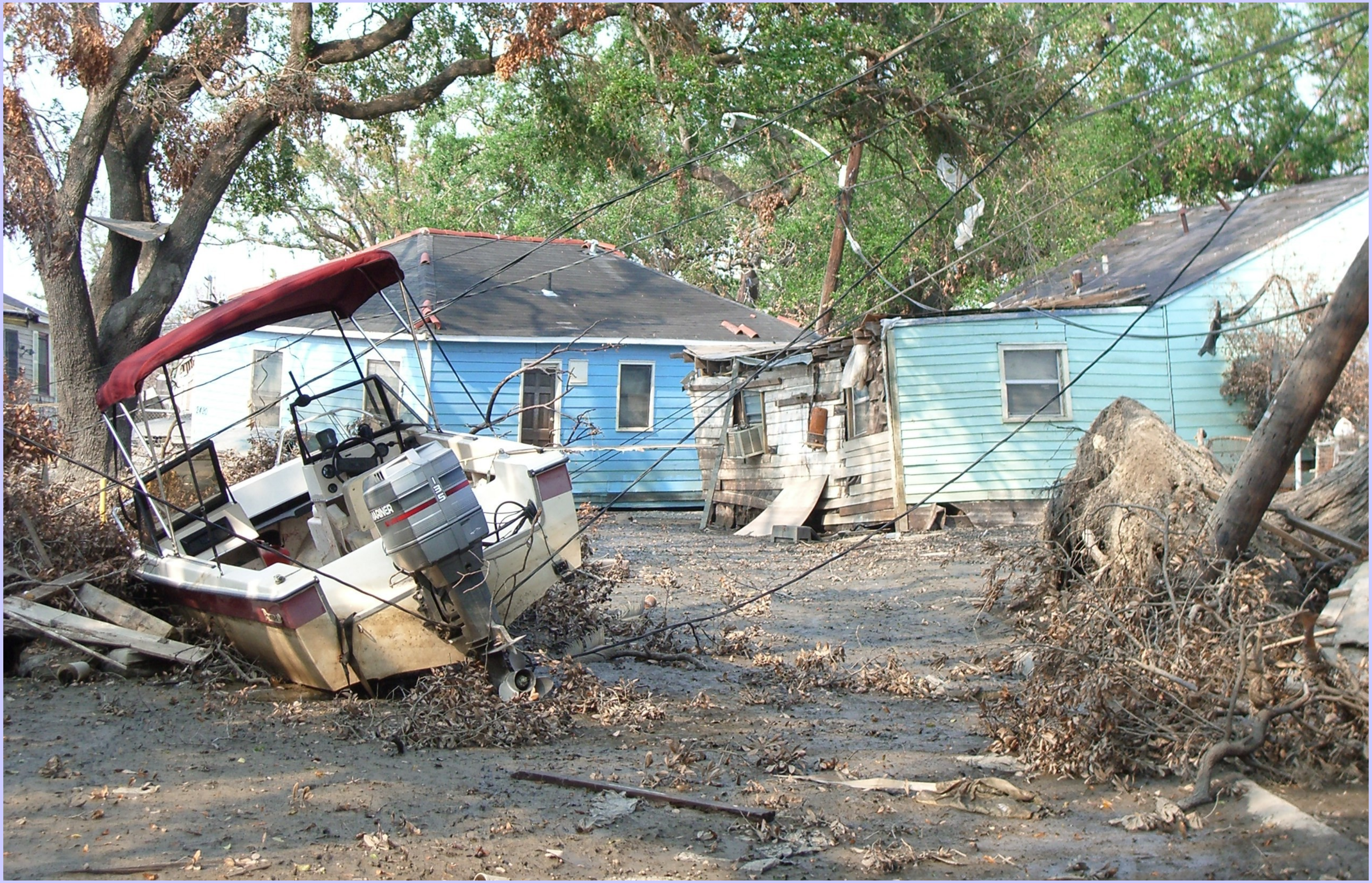
Small Motorized Equipment Processing



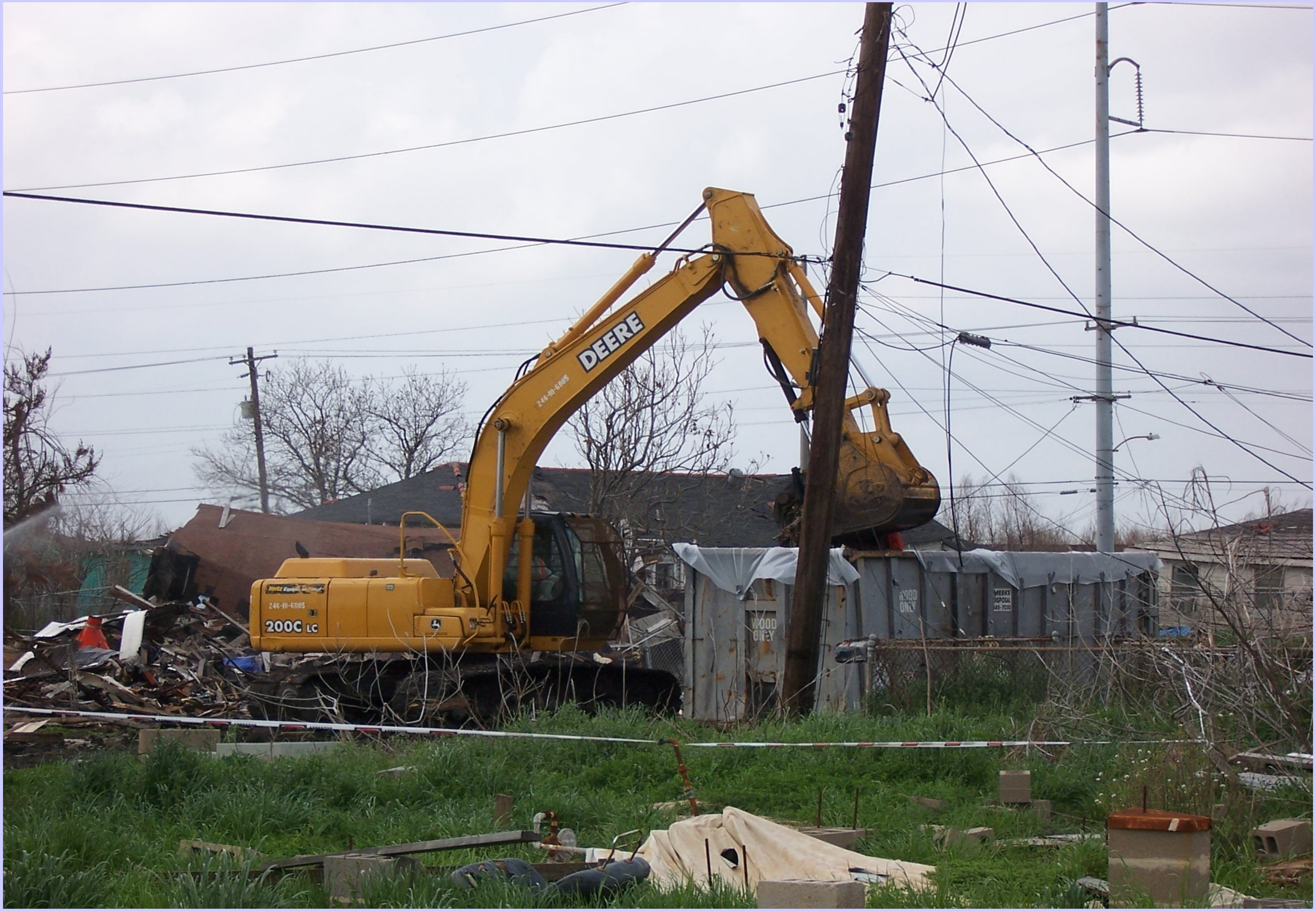
Levee Board Debris



Structure Demolition



Structure Demolition


DEERE
246-10-6005
200C LC
WOOD ONLY
WOOD ONLY
MEEKS DISPOSAL

US Army Corps of Engineers ®

Relevant
Ready
Responsive
Reliable